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# THE FAR EASTERN REVIEW

## ENGINEERING FINANCE COMMERCE

# 遠東時報

PARTIAL LIST OF CONTENTS:



*A Street in the Chinese City, Peking*

# The Far Eastern Review

ENGINEERING FINANCE COMMERCE

VOL. XV SHANGHAI, JULY, 1919 No. 7


# The Passive Revolution

## *Peking at last Hears the Voice of the People*

Republicanism in China has for seven years been nothing more than a vogue in conversation and in the phraseology of official documents. After the Revolution of 1911, a feud between the elder and younger officials, the official caste learned to use quite a long list of newly coined catch phrases having to do with

TSAO JU-LIN.

Ex-Minister of Communications, who was driven from office by popular clamor as a traitor. He is denounced as being under Japanese influence and one of the prime-movers in the granting to Japan of important concessions.

democracy and in the use of these phrases consisted Chinese democracy. It became fashionable to talk of government by the people and it was solemnly announced in numerous documents that the popular will was sovereign in China. No one read these documents, however, but members of the official caste, and no one who read them really believed that the will of the unwashed would ever manifest itself and intrude upon the comfortable conclaves of the occasionally-washed. Democracy was an imported theory which the cultured member of the official caste had to learn to discuss, but which in his own heart he never seriously considered as applicable to China. It might do well enough in other countries, but the bare suggestion that the masses of the people might keep an eye upon the comings and goings of a high official, might check his receipts and expenditures, and might order him out of office arouses nothing but horror in the conservative Chinese official mind. How many officials during the growth of the recent popular movement have told the leaders of the students, of the merchants, and of other recalcitrant classes, that affairs of government were solely the government's affairs and that the people should go back to their routine of study or trade or labour and let the government take care of its affairs!

And now for the first time in the modern history of China the people have risen in articulate criticism of the Government--or rather of the governing class—have made demands upon it and have frightened the much distressed tradition worshippers into concessions which a month ago they would not have dreamed of making to any organization but an overwhelmingly powerful military coalition. What the politicians and militarists of opposing parties and of a number of southern provinces have been conspiring for and even fighting for over a period of years has been attained in a few weeks, by a handful of schoolboys whose unselfish patriotism has forced admiration from the militarists themselves and has made many of them wish that they were in other company. They have stirred the nation to its first real interest in public affairs and have shaped the nucleus of public opinion about which there is now some hope of building a real Chinese democracy.

Interest in student activities was first aroused by the action of the students in Peking who stormed Tsao Ju-lin's house on May 4 and drove that official and several of his colleagues into hiding. The Peking student movement has more or less led all other movements in China during the ensuing weeks and the relations between this body and the Government has always indicated to the provinces the progress or retrocession of the general movement. Agitation in the Yangtze Valley, in Shanghai, and in Canton are of such common occurrence, and usually run their short courses with such emotional fury and so little evidence of sound policy or organization, that they have nearly discredited themselves and have to be very big indeed to attract the attention of either Chinese officials or of foreigners. With Peking it is different. Peking has a very large and notably efficient police force, augmented by gendarmerie and by some of the best divisions of soldiers in the Chinese army, all under the command of tried retainers of the military dictators, and all as reliable as such organizations well can be. Any group of people contemplating disorder or even mild demonstrations against the Government must take these forces into account, and as they are fully appreciated by the Chinese, any movement in the Capital is regarded as serious and is not set aside as a mere overflow of animal spirits, as it might be in Shanghai or Canton.

In April, fifty-two commercial organizations, controlling a very big percentage of China's big trade, passed resolutions in

Shanghai which were not at all complimentary to the Peking Government. This scarcely created a flutter in the Capital. About the same time huge popular mass meetings were held in

LU TSUNG-YU

Ex-Director of the Currency Bureau, who was forced out of office as a traitor. He is considered one of the foremost in forwarding Japanese interests in China.

Tsinanfu, the provincial capital of Shantung, at which the Peace Conference's disposition of Kiaochou and the Government's complicity in this matter, were heatedly discussed and many more uncomplimentary comments were made upon Peking. But Peking was not in any degree distressed. Then on May 4, 3,000 students in Peking marched to Tsao Ju-lin's house with three thousand banners denouncing the "traitors", raided the place and fired it, while the efficient Peking police looked on, and all China was thrilled, what time the Government gathered itself together and took spasmodic action in self-defense.

Thirty-three students were arrested by the police some time after the raid upon Tsao's house, and some distance from the scene of action. The news of Tsao's discomfiture was just being applauded by the people at large when the news of the arrests came. The reaction was immediate. The Government's stock went very low, and organizations sprang up throughout China like mushrooms pledged to punish the "traitors", to recover Shantung, to boycott Japanese goods, to pull down the militarists and the like. The merchants in this moment of excitement rushed to their Guilds and Chambers of Commerce and resolved to do all manner of things which it would have been very difficult to persuade them to do in their cool reflective moments. They agreed upon the boycott and with an eye upon Korean tactics threatened a general strike if the students were not released. The students who had attacked Tsao's house were mostly from the Peking University, and from other government institutions like the Higher Normal College and the Technical School. Within twenty-four hours a federation of 27 schools above the middle schools was formed with one Tuan Hsi-peng as chairman, and an active propaganda against the Japanese, against the Government, and in favor of a cleaner government was going on throughout the Peking district. A giant mass meeting was planned for May 7, the anniversary of Japan's ultimatum to China in 1915, and, in spite of police prohibitions it was decided that something big and desperate should be done if the imprisoned students were not released. Fortunately they were released and both merchants and students returned quietly to organization and propaganda. The Government took this as a sign of disintegration and began enforcing stringent police regulations. No meetings were permitted, no street preaching was allowed, and the students were closely watched and were warned that the released prisoners would yet appear for trial and be duly punished. President Hsu Shih-ch'ang, at the instigation of the militarists, who were beginning to regain their poise, began a series of mandates which opened with a sweeping condemnation of the student agitations and closed with a general whitewashing of all those who had been denounced as "traitors", praising them for their services to the state.

Martial law was instituted by an indirect device which for many days was not entirely clear to the Legations nor to many of Peking's officials. In November 1917 it was provided, as a war measure, that the President should be vested with the authority to call upon the commander of the Peking Precautionary Force at his own discretion, to take complete charge of the metropolitan district and to administer it according to martial law. In one of his early mandates President Hsu called upon General Tuan Chih-kuei, commander of the Precautionary Force, to maintain order, which was interpreted by the militarists to be equivalent to a declaration of martial law, making General Tuan the immediate superior of the police chief and the commander of the gendarmerie, though the significance of this mandate was not appreciated by the general public for many days. The militarists were evidently preparing to crush the incipient rebellion with a heavy hand. But the fuse lighted in Peking had burned into the provinces and a conflagration began. On May 9 five members of the militarists' own Parliament introduced a bill impeaching the "traitors." On May 15 the Governors of 15 provinces had already telegraphed protests against the settlement of the Shantung question and against the Government's attitude towards it, while at least ten provincial Chambers of Commerce had sent in wires equivalent to a denunciation of the Government. On the same day the merchants in Shanghai made a formal beginning of the boycott and a run on the Japanese banks commenced, while crowds began removing Japanese posters and other advertisements from the bill boards.

After a lull in Peking of more than ten days the students suddenly became active again on May 19. Delegates had been sent out to 15 provinces to encourage strikes and demonstrations and many of them had returned to announce the success of their missions. Chairman Tuan of the Peking Union went to Shanghai to assist in the formation of a national organization, newspapers were planned in Peking, Tientsin and Shanghai, and on May 19 the Peking students abandoned their class rooms and announced that they were on strike. A few days later the news of a sympathetic movement in the 5th Peiyang Army Division, stationed at Tsinanfu, reached Peking, and on May 25 the *Yi Shih Pao*, a daily paper, was suppressed by the police for publishing resolutions said to have been passed by the officers of the division. At the same time two student organs, the *Wu Ch'i* and the *Chiu Kuo*, were suppressed in the Government University and the Higher Normal College, and on that same day General Li Chang-t'ai, the very popular and kindly old commander of the gendarmerie, was removed from office and was replaced by Wang Huai-ch'ing, the very capable but very severe Defense Commissioner of Ta Ming-fu. With Wang's appointment the decline of the prestige of the military began. General Tuan Chih-kuei had been made supreme commander of the metropolitan district but he was not informed of the change and learned of it for the first time in a casual reading of the official gazette. Naturally there was bad feeling, and very shortly after General Tuan sent in his resignation and intimated that he did not believe in the oppression of the patriotic students. In the meanwhile General Wu Ping-hsiang, who had been extremely liberal in his direction of police

activities against the students, had resigned several times, by way of protesting against the Government's policy, and in the proclamations which he had been forced to issue as police chief, had assumed a paternal and kindly tone which had done little but encourage the merchants and students. There were rumours of

CHANG TSUNG-HSIANG

Ex-Minister to Japan, who is grouped with Tsao Ju-lin and Lu Tsung-yu as traitors for espousing and assisting Japanese policy in China, particularly with being interested in bartering Chinese concessions to Japan.

disaffection among the soldiery, stories of the organization of an officers' secret society, and accounts of doings among the military in Tsinanfu and Paotingfu which made the militarists in Peking feel that the props were slowly but surely being cut from under them and that collapse of their whole organization was imminent.

Meanwhile certain political organizations, unrecognized by the merchants and students, were seizing upon the predicament of the authorities to make things more uncomfortable for them. The Chinputang, a political clique which has maintained its existence for several years by alternately co-operating with and blackmailing the militarists, worked through a new organization, presided over by Lin Ch'ang-min, known as the "People's Foreign Relation Society", hoping through this institution to ride into place and power under militarists. Behind these conspirators was Ex-President Feng Kuo-chang, hoping to displace President Hsu and ride once more into office with Ex-Premier Hsiung Hsi-ling as premier and the Chinputang leaders as his cabinet. Between them all, through old military affiliations, the two divisions of the Imperial Guard, the President's body guard and several big organizations under Tuchun Tsao Kun, Military Governor of the Metropolitan Province, were tampered with and it became known that they would not support the Peking pro-Japanese clique. On May 26 twelve thousand students struck in Shanghai and both commercial and educational institutions throughout China began to take action in one way or another.

The Peking militarists, either blind to the omens or determined to try their strength, made the final test on 1st June when they had President Hsu issue his mandate "whitewashing" all the officials who were notorious for their associations with the Japanese money lenders and who were most directly responsible for the sale of national rights and properties. This elicited an immediate response. The Peking students, who had been abiding strictly by police injunctions, who had been holding no meetings and no demonstrations and had even been submitting their propaganda to the police office for censorship, broke loose in a storm of street preaching and demonstration—an open challenge—opened a paper in Tientsin and otherwise disported themselves and were promptly arrested by the hundreds.

On the 3rd and 4th of June nearly 1,000 students were taken into custody and were guarded in a detention camp in the Law Department of the Peking Government University. Scarcely had they been rounded up when 700 girls from the girls' school called at the President's Palace and gave the Chief Executive's secretary a piece of their mind. It was getting a bit thick for the authorities. Strikes began in Shanghai and Hankow, then in all the Yangtze Valley cities, and in all the coast towns. First the merchants closed their shops, then the laborers and wharf coolies quit and refused to handle cargo, then chauffeurs, factory workers, house coolies and wage earners of all classes joined in the general holiday. In Peking the troops surrounded the Law Department but it took many more soldiers and police to keep the rest of the unarrested students from forcing their way in than were required to detain those arrested. The police, gendarmes and soldiers began to show their sympathy for the students in unmistakable demonstrations. Tientsin had a huge demonstration followed by a merchants' strike and the Civil Governor of Chihli Province capitulated and agreed to permit open propaganda and to hold consultations with the recalcitrants. The army bubbled with ill-suppressed insurrection and there was nothing for the unsupported military commanders in the capital to do but acknowledge that they were beaten. They ran to the Legations for advice and got none. They confessed that they had no further power and would have to yield, and got no sympathy. The troops were withdrawn from the detention camp, but the students would not leave. They had been formally arrested and they demanded a formal release. They had been starved for a day and they wanted an apology for bad treatment. All of this they got, and on 7th June the great body of the Peking students went to meet them, they were escorted through the streets, in and out of the usually inapproachable entrance to the President's palace where they cheered wildly "just to give the old man a thrill", and thence to their various schools.

On the tenth appeared the Presidential mandates accepting the resignations of Tsao Ju-lin, Minister of Communications, Lu Tsung-yu, head of the Currency Bureau of the Ministry of Finance, and Chang Tsung-hsiang, Minister to Japan, the three "traitors" most openly denounced and most conspicuously "whitewashed" in the President's previous mandates. The students and merchants had won an undisputed victory, had thrown the Government into a chaos which entailed the resignation of the entire Cabinet, and even the tentative resignation of the President himself, and had completely disarmed the Peiyang military organization which has borrowed nearly $300,000,000 of Japanese money in two years to keep itself alive. Certainly there was not much more to do, and as it happened events in Shanghai had taken a turn which made another lull advisable and prompted the northern reformers to rest on their laurels.

Rumours of the Government's possible surrender to the national movement were in circulation in Shanghai on Sunday, June 8, and had a marked effect upon the attitude of the demonstrators. Up to this time the students and merchants had the movement in hand and had perfected an organization for maintaining order, for working against the natural inclination of trouble makers to create disturbances and for preventing anti-foreign demonstrations in the heat of the boycott movement. All shops were closed and the native banks threatened to close, but on Sunday evening there was a general relaxation and it was believed that the shops, which had been plastered over with thousands of anti-government and anti-Japanese posters until shops windows and woodwork in many quarters were virtually invisible, would probably open on Monday morning. The students'

associations issued proclamations against disorder, discountenanced violence, and offered to protect foreigners against molestation and to get food into the Settlement.

A turn for the worse came on Monday, June 9, however. The Shanghai Municipal Council, wholly unsympathetic and most

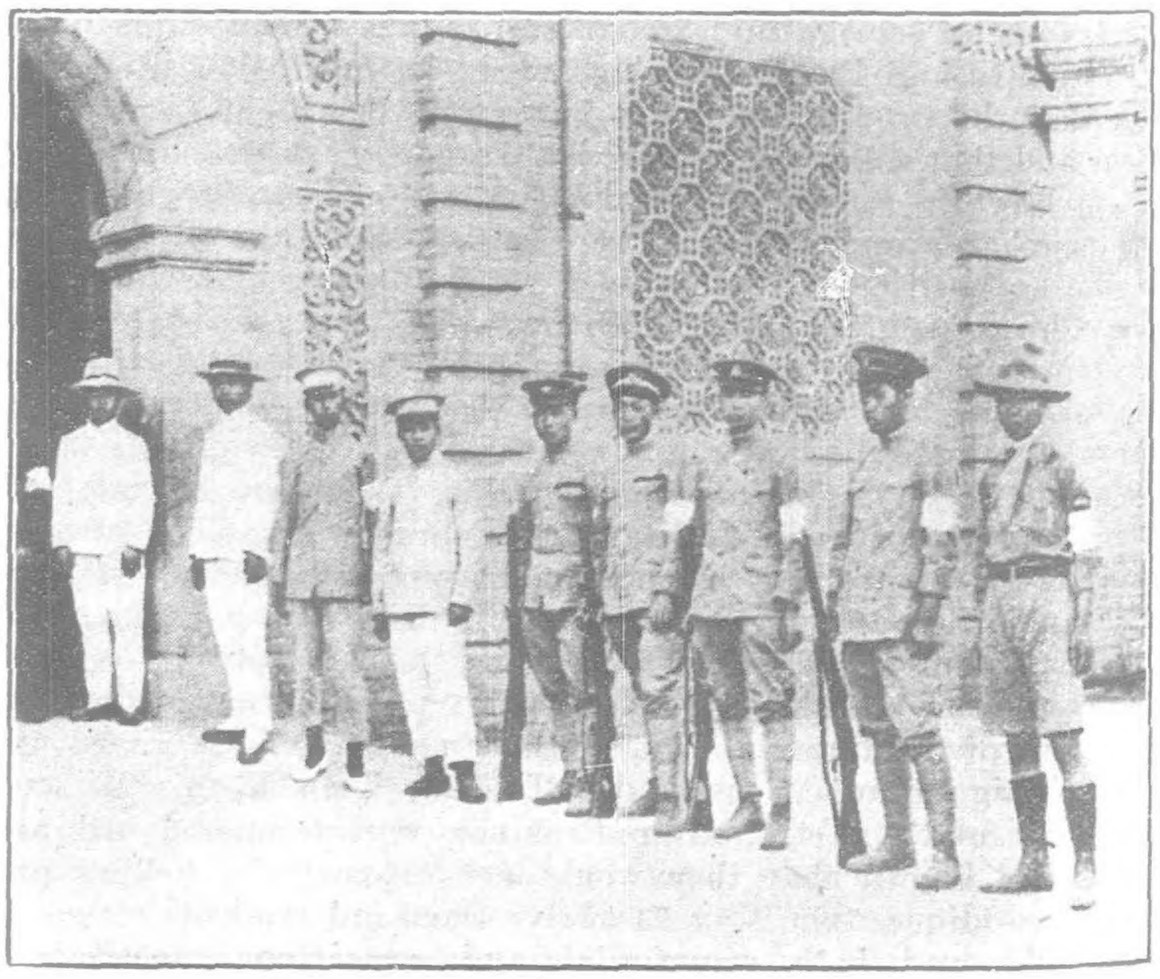
CHIEN NENG-HSUN

Ex-Premier who resigned on account of the popular agitation against the Government.

unconciliatory in its attitude had adopted a policy of defiance to the demonstrators and showed a determination to suppress the entire movement as if it had been a coolie demonstration against the Council itself. Ridiculous efforts were made to remove posters from all streets in the International Settlement, crowds were dispersed by baton charges on the part of the police; and the Sikh police became rougher and less considerate in their management of the crowds. A student representative was sent by the federation to offer assistance to the Council in the suppression of disorder and the protection of foreign interests, but this delegate was told over the telephone by one in high authority that the Council was not dealing with any Chinese. That same Monday a crowd of striking butchers and a rough following gave an English butcher an unpleasant handling and threw his compradore into the river for trying to smuggle meat into the Settlement. Taking action upon this incident the Council issued an order prohibiting all students and other demonstrators from appearing in the Settlement with badges, banners, or other insignia, from holding meetings, preaching to the crowds, parading and the like. This was a challenge to the 600,000 Chinese residents of Shanghai which the Legations in Peking and the Chinese authorities promptly recognized as the possible source of serious trouble, for it showed a tactlessness, based upon gross ignorance of the whole situation, which was appalling to every one out of Shanghai and which frightened a great proportion of the foreign residents of the port itself. The immediate result was the withdrawal of the students' headquarters from the International Settlement to the Chinese City, and a general announcement that the students could no longer be responsible for what might ensue. The laborers' strikes followed, the merchants who had been contemplating reopening their shops, closed up again, and the city was overrun with tens of thousands of idle workmen whose temper was anything but reliable. For two days there was momentary danger of a flare up which, had it come, would have meant the extinction of the foreign colony in Shanghai and would have turned the anti-government and anti-Japanese movement into an anti-foreign movement of bitter intensity. The volunteer corps, much against the best judgement of some of the commanders and a great percentage of the members, was ordered out and was sent swashbuckling about the town inviting trouble where there was none, hauling machine guns about through a city which had been under the perfect control of an efficient organization until the Council had expelled the organization and defied it, sending troops of amateur cavalry, charging over pavements into crowds of Chinese spectators with swords drawn and an air of make-believe martial ardour.

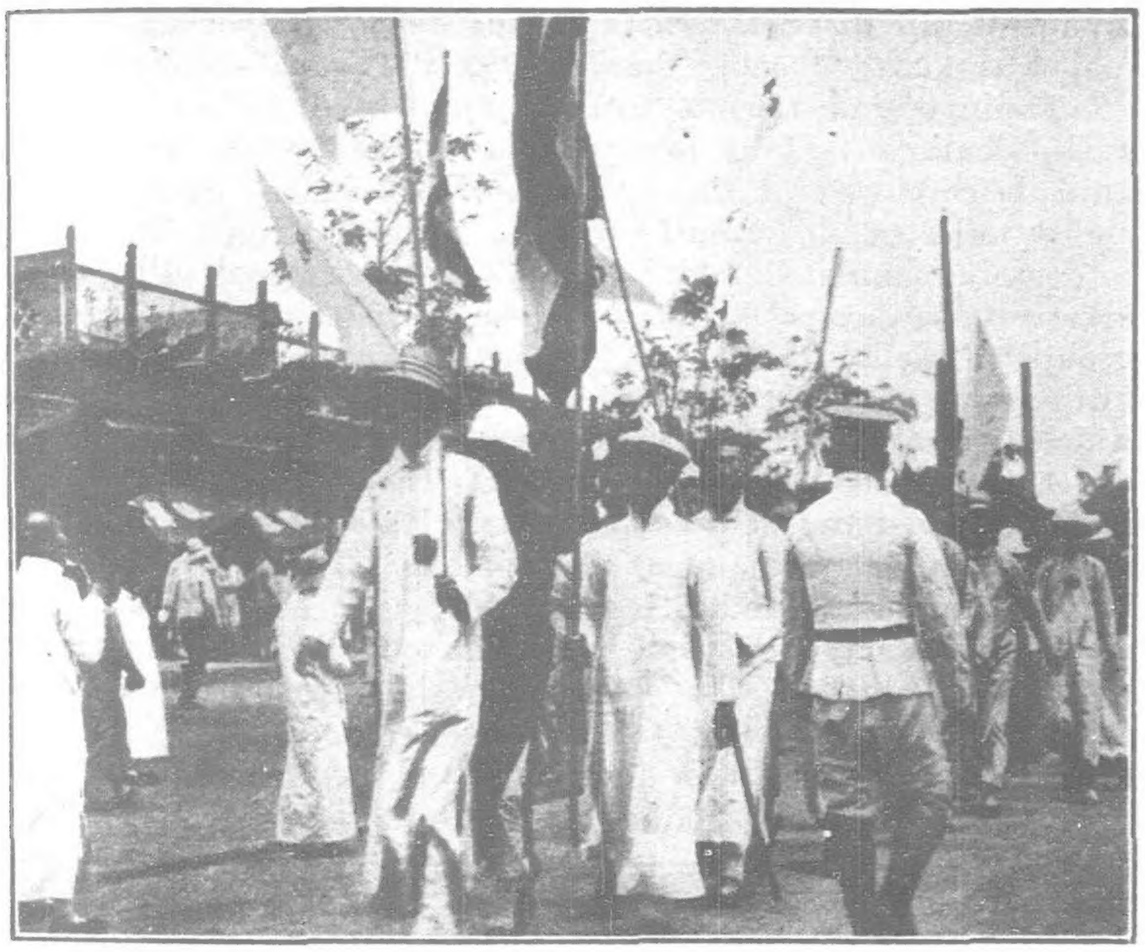
A British monitor, the *Bee*, was drawn up alongside the Customs' jetty by order of a panic-stricken faction and a landing party of nine men is said to have done police duty on the foreshore. By whose orders this precedent, in violation of all previous precedents, was established is by no means clear. The highest authorities are said to have at first admitted complicity and then at a meeting of the Consular body denied all responsibility. At last came the shooting of one of the leaders in a procession formed Friday night, June 13, to celebrate the Governments' removal of the three objectionable officials, Tsao Ju-lin, Lu Tsung-yu, and Chang Tsung-hsiang. The parade—in which no students took part—was formed by working people, proceeded through the French Settlement, and attempted to enter the International Concession where it was blocked by Sikhs under foreign police inspectors. A fight ensued and firing began. The result was one parader killed and a number wounded. This, in the minds of every Chinese in China who has been following events, put the final seal upon the Municipal Council's attitude.

No greater mistake in policy has been made by foreigners in China since the shaping of the events which immediately preceded the Boxer movement. Whatever the self-governing status of Shanghai may be the Chinese people know that the advice of the Consular body in Shanghai carries all weight with the members of the Council and they know that the Consular body takes orders from the Diplomatic body in Peking. They, therefore, trace a direct line of responsibility back to the Legations in Peking and the attitude of the Peking Legations means foreign policy in China. Throughout the period of the war the Allied peoples have been teaching the Chinese the value of propaganda. The militarist Government in Peking has been inimical to British, American and French interests and has been properly con-



PORTION OF A STUDENTS' GUARD AT PEKING UNIVERSITY

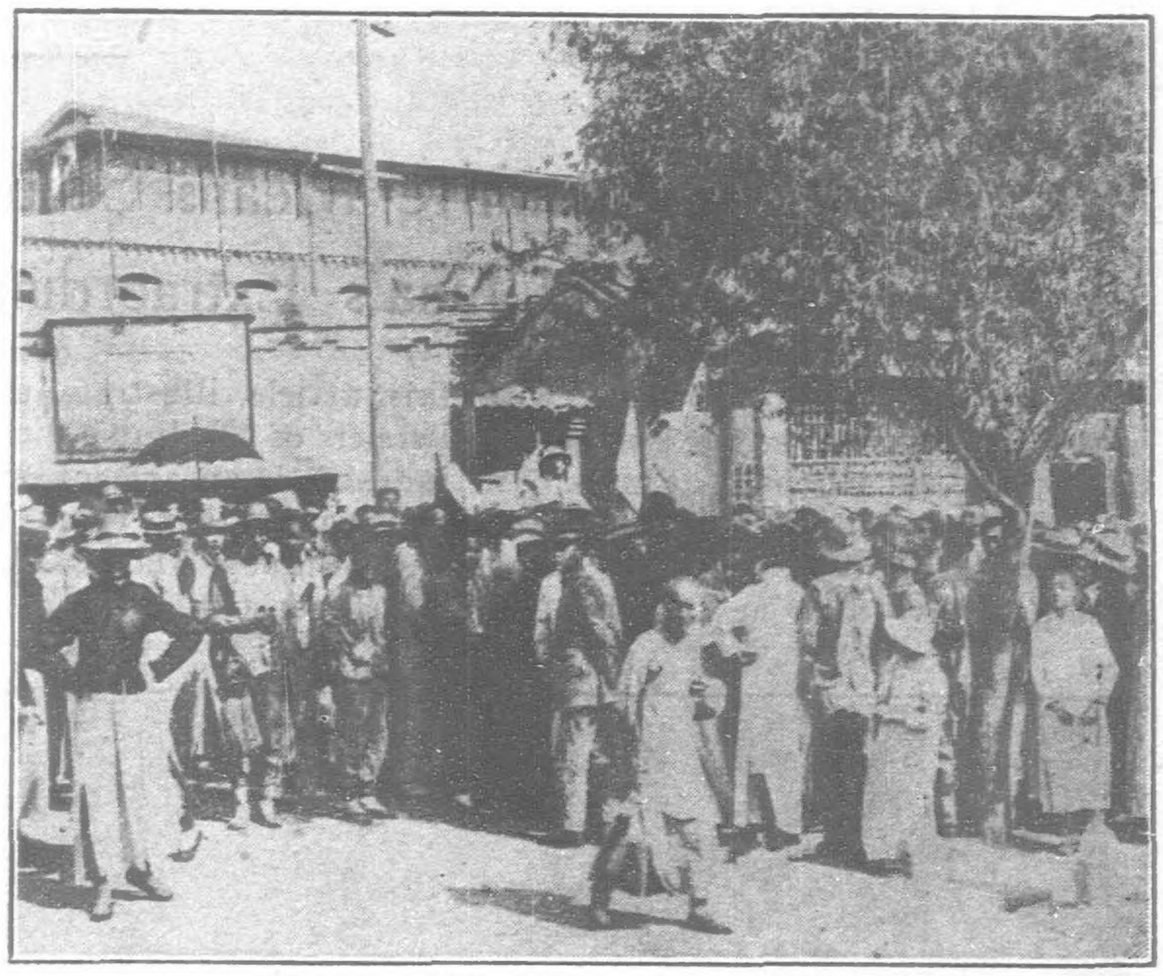
demned by the Allied press in China as associated with a militaristic group of Japanese exploiters who have been openly opposed to both the interests of foreigners and of the Chinese people. The Allied press has heartily damned the Chinese people for tolerating such a government and for allowing national properties and rights to be sold to the Japanese expansionists. Taking advantage of foreign advice and of the lessons learned in propaganda, taking the foreigners at their word and believing that they were generally interested in the growth of the people's power as opposed to the power of a selfish and ambitious military clique, the leaders of the people, merchants and students, started a propaganda movement, which was incidentally directed against the Japanese but was fundamentally a passive rebellion against their own corrupt government. Having realized from the Paris decision with regard to the disposition of Shantung that policy still overrode principles in the settlement of political affairs, they probably did not expect open sympathy, but they certainly did expect in the foreign settlements in which so many political conspirators haye been permitted to conspire undisturbed, freedom of expression. They discovered, however, that their own military authorities, owned body and soul by the Peking military clique, were inclined to be more liberal and tolerant than the foreigners to whom they looked individually for sympathy and collectively for liberty to express themselves. In Tientsin, also, while the Civil Governor Tsao Jui, brother of the staunch metropolitan militarist Tuchun Tsao Kun, permitted the students and merchants freedom of speech, freedom of the press and freedom of action, the authorities of the various



STUDENTS PARADING IN PEKING

foreign settlements refused the students permission to publish a newspaper giving news of the students' movement only and pledged to refrain from editorial support of the boycott. It must be admitted, however, that the attitude of the Shanghai Municipal Council and of the members of the Consular body in Shanghai met with scant sympathy in Peking and that the first report of the Council's action no sooner reached Peking than the American, British and French Ministers agreed to telegraph their Consuls in Shanghai to abate the nonsense and calm themselves, or words to that effect.

The political outcome of the whole demonstration, which promptly subsided with the removal of the three unpopular officials, is general uncertainty and a great deal of "watchful waiting" on the part of the military. They are very uncertain where they stand. They realize to the fullest the power of the storm that has just blown over but they do not know whether it has cleared sufficiently to permit them to venture forth again or not, so they are feeling their way. The day after the acceptance of the resignations of Tsao Ju-lin, Chang Tsung-hsiang and Lu Tsung-yu, it was announced that the President and the Cabinet had resigned. The President was persuaded to stay without much difficulty, but the Cabinet was permitted to go and an acting Premier was appointed. Minister of Finance Kung Hsin-chan was appointed to act until the appointment of a Premier, and the military sat back to see how it would be taken. The Peking community was silent and while Tientsin and other cities

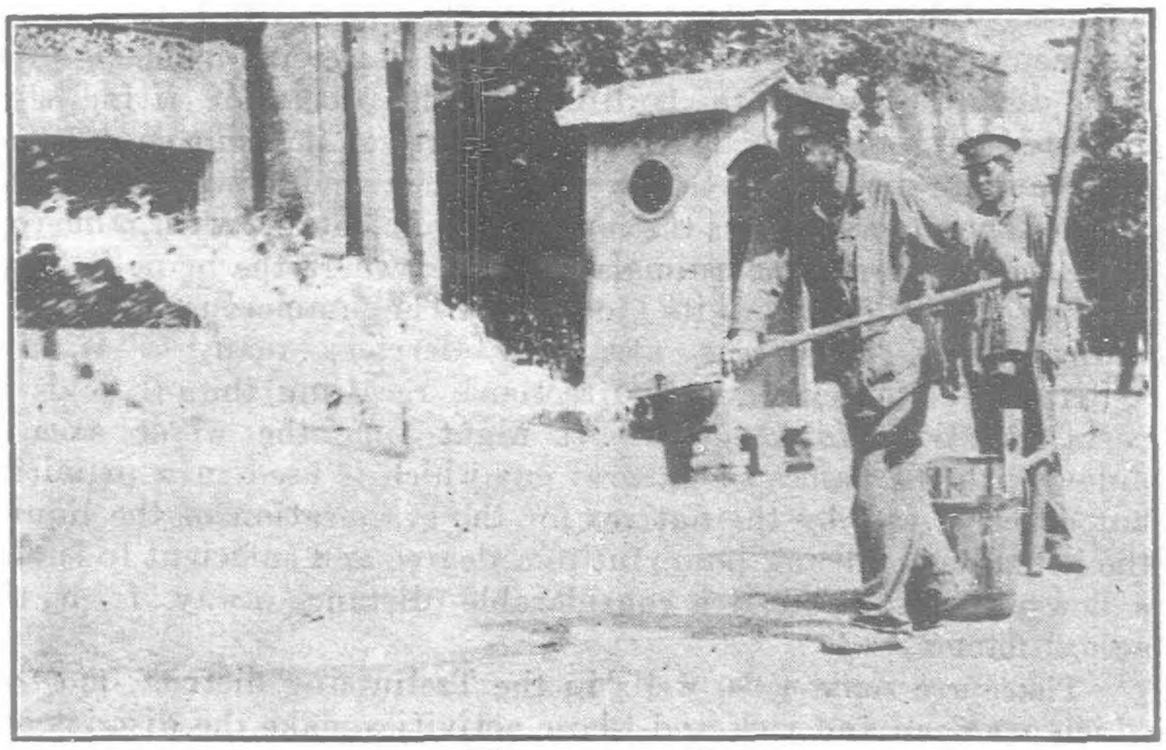


A STUDENT STUMP ORATOR IN A PEKING STREET

continued to boil, the Shanghai trouble adjusted itself and it became pretty clear that the demonstration, so far as internal affairs were concerned, had run its course. It seemed most likely —and it still seems so—that government affairs in the Capital would be permitted to go on much as they had before, that the people had worked themselves weary and that if the military trod lightly they might go on running their affairs without further interference.

Past events are nevertheless a permanent index to a class which has held the will of the unarmed and unorganized people in contempt, of the real power of public opinion and the memory of this ordeal will always be an unpleasant ghost which will rise before the surviving members of the group which has been abusing its power so scandalously.

It would be far too much to hope that through this agitation of a few weeks the people had been sufficiently aroused and educated up to their responsibilities to take a hold upon matters of government and direct them along democratic lines, for they will probably grow indifferent again and forget much that has happened; but it is certainly true that China has been brought much nearer democracy in these few weeks than in the previous seven years of nominal republicanism.



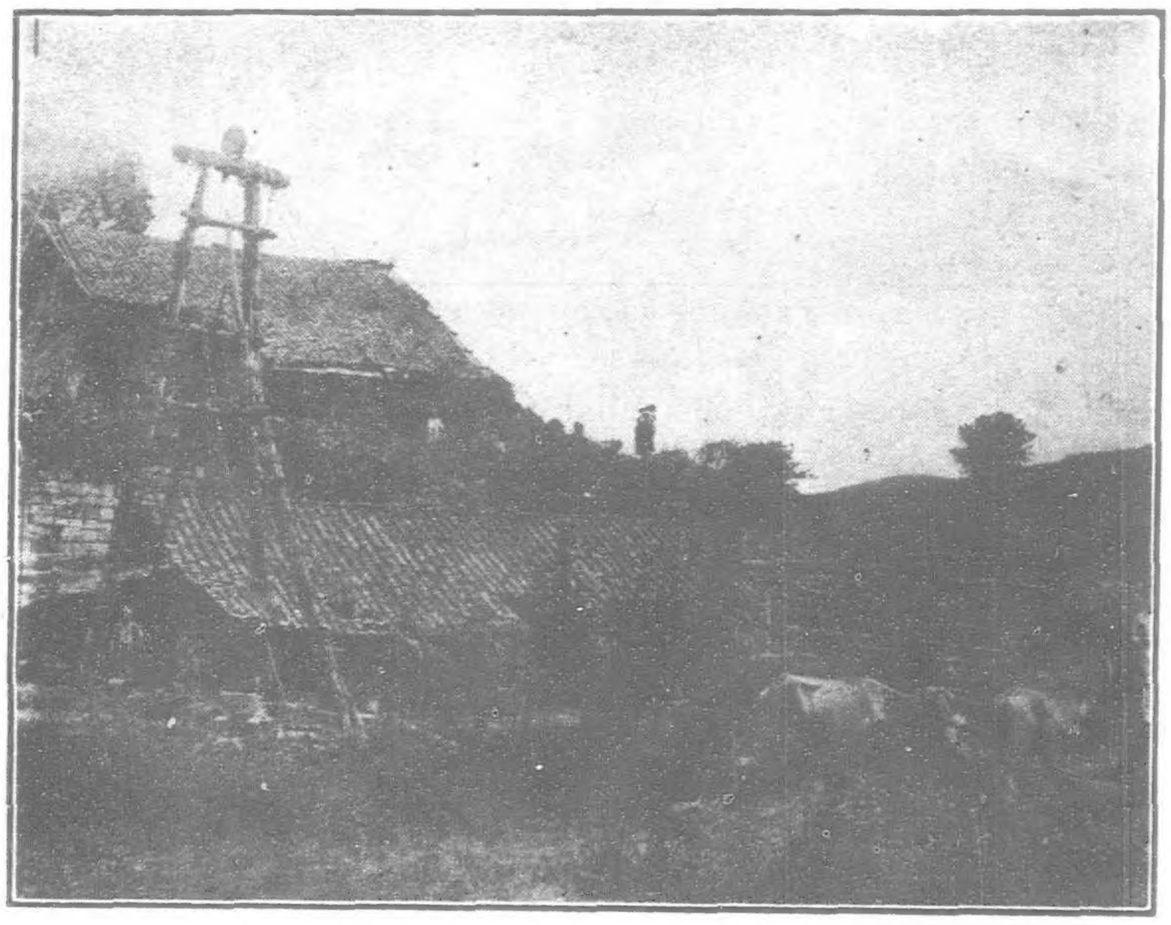
STREET WATERING IN PEKING.

Streets in Peking are usually watered by thousands of coolies working in pairs, though a few water carts with sprinklers are employed. A basket attached to a pole is the sprinkling implement used by the coolies.

# The Remarkable Salt Wells of Szechuan

## Well-drilling by Primitive Means Secures Striking Results and Constitutes one of China's Extraordinary Engineering Feats

**The photographs published with this article illustrate the methods adopted to secure salt at the district of Tzeliutsing in the province of Szechuan, China. The industry is an ancient one and an extraordinary one, for the simple reason that brine is taken from the deep bowels of the earth by Chinese who use the most primitive tools and devices, their work constituting one of**



TZELIUTSING SALT INDUSTRY.

At wells like this buffaloes travel around the windlass upon which the cable from the well is wound. As they wind it up, the cable draws the brine tube out of the well, and its load of brine is dumped into the transmission system, and so to the evaporators

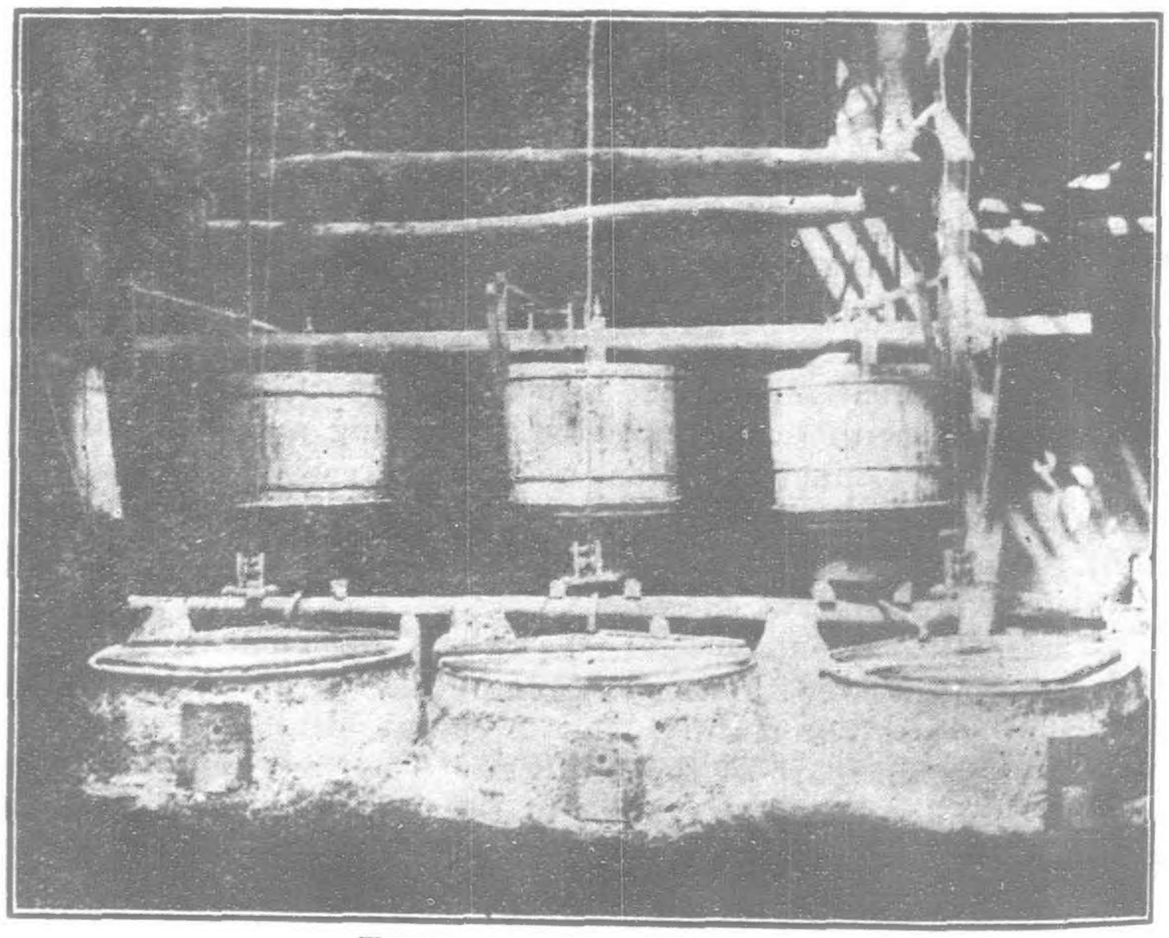
the few engineering feats peculiar to the natives of China. Wells are bored, sometimes through solid rock, to a depth of 3,000-ft., and the boring takes many years of unceasing and patient labor with bamboo poles shod with iron and with power supplied mostly by the brawn of the human. Water buffaloes, donkeys and ponies are used to haul the brine from the wells and to lift it to a height sufficient to give it head enough to gravitate in bamboo pipes some distance towards the boiling vats, the process of lifting being repeated over and over again in the course of the journey to cover the requisite distance from the well to the evaporating sheds. This part of the process causes the landscape to be dotted with numerous high sheds wherein the animals work and where the brine is lifted so that it may continue its journey. The numerous wells are indicated by the great array of derricks—many 120-ft. high—that meets the eyes in all directions, recalling the oil fields in certain districts in America. At night time the whole area is aglow with the flames of natural gas which is used in a primitive but effective way by the natives for the evaporation of the liquid, the illumination being powerful to a degree and sufficient to enable a newspaper to be read a considerable distance away from the actual flames.

There are some 4,480 wells in the Tzeliutsing district, most of which are deep and rich and whose activities make the district one of the chief salt producing centres in China. In 1914 a total of 4,382,354 piculs of salt were produced in this locality and were transported by water or trail to various parts of the province and into adjoining provinces. The salt produced is divided into two classes: "*Hua*" or Crystal salt, and "*Pa*" or salt in compact cakes. This is again divided into "*Yin*" or waterborne salt sold wholesale, and "*Piao*" or overland salt usually retailed to peddlers. Waterborne salt is for sale in neighboring provinces and overland salt is for local consumption.

It is estimated, according to the Lyons Mission, that there are on 160 square kilometres some 3,000 to 4,000 wells, of which about 1,000 produce more than 100 hauls of brine per day. A charge weighs from 200 to 240-lbs., according to whether the liquid is yellow or black. For 300 days of work these 1,000 wells produce 150,000,000 kilos of brine.

Hundreds of thousands of people depend upon the industry, either working at the wells or in the transportation and sale of the salt, which is taken great distances in boats or on the backs of men or beasts of burden. The population of the Tzeliutsing and Kongtsin salt districts, where all the wells are operating, is estimated at 1,000,000—more than 6 000 to the square kilometre.

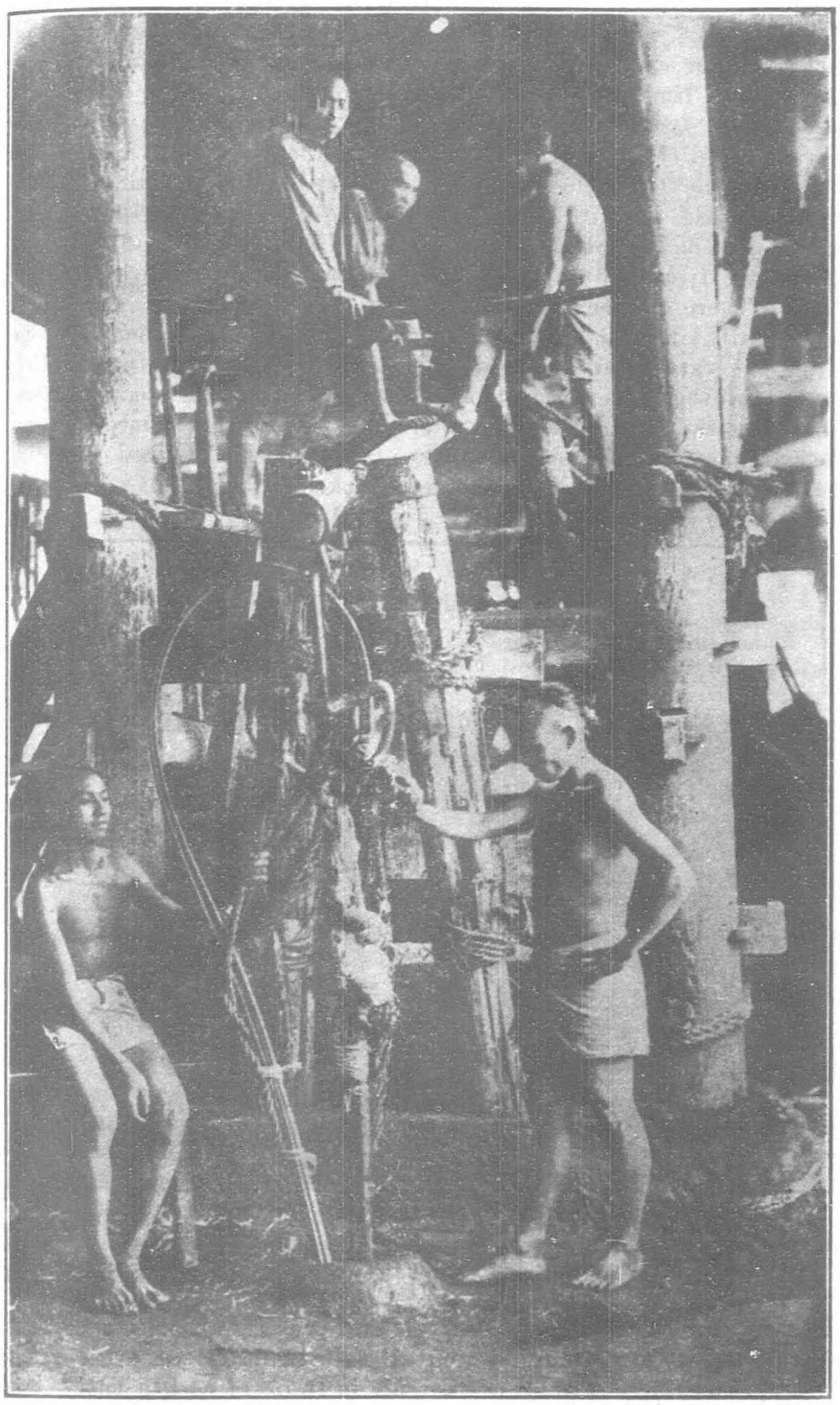
Tzeliutsing district is situated amid small hills of red sandstone—characterized by pastures for the use of the innumerable animals employed at the wells—in south central Szechuan some eighty miles north of Suifu, on the Yangtze River. The district is densely populated and is composed of scattered villages. It constitutes a natural brine field which is exploited by many groups of wells, and which is genetically related to a range of hills on the south flanks of which lies the town of Tzeliutsing, which is also on the banks of a branch of the To Kiang, a river which enters the Yangtze at Luchow. The town is a thriving one and contains many wealthy residents. Its commercial importance is primarily due to the great trade in salt. The natural gas which is found in abundance has considerable value, but practically only as an agent in the salt industry, as a source of heat for the evaporation of brine. The streets are daily scenes of tremendous activity and noise. Caravan after caravan of coolies and pack animals laden with salt, or food for the animals, or coal to supple-



TZELIUTSING SALT INDUSTRY.

Gas fires can be seen in the small hole below the brine vats. The tank above contains brine for the refilling of the vat, when the brine has been distilled. This is an attempt, and the only one noticed, to automatically lift the vat covers and refill the vats

ment the natural gas at the evaporating works, are ceaselessly on the move while troops of buffaloes mingle with the general throng. Always there is the accompanying clamor of the coolies yelling for passageway, screaming at one another or at the various animals, the weird creaking of the wheels on the derricks, the whin-



TZELIUTSING SALT INDUSTRY.—BORING WELLS WITH BAMBOO POLES SHOD WITH IRON.

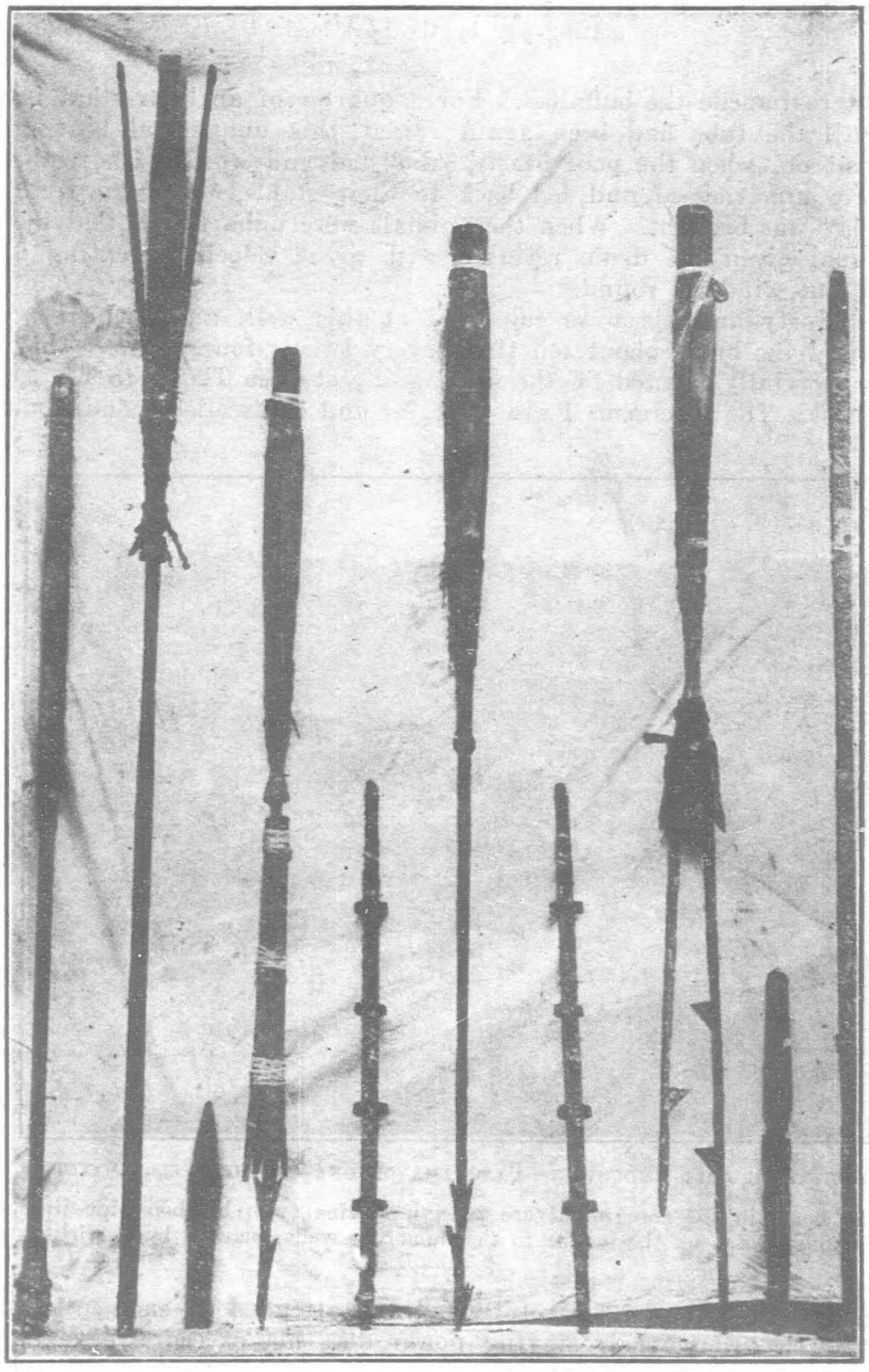
ing of the great drums used for winding up the long plaited bamboo cables which haul up the brine, the roaring of the flames from the natural gas, the clattering of horses' shoes on the stone flags, and the ringing of the bells on the caravans, all combining to form a concert discordant and curious and nerve racking, but leaving an unforgettable impression of the latent power in the Chinese when at work. Nor is the activity or the noise confined to the streets. The river is black with junks of all shapes and sizes, junks carrying brine from the wells to the evaporating sheds; coal from the mines, bamboo stems either for use in the wells or for piping which is laid from one side of the hills to the other to distribute the brine to the evaporating sheds, and boats laden with salt for different points of distribution. Hustle, bustle and noise are everywhere.

One of the best descriptions of the wells so far published is that furnished by Sir Alexander Hosie, in a British Blue Book on Szechuan and we give it as it stands because it is not technical and yet conveys a general idea of the character of the industry.

Sir Alexander describes his observations as follows:—

I found myself seated—a settee had been procured for me—beside a square stone embedded in the ground, with a central hole a few inches in diameter. From the hole there was issuing a hempen rope about an inch thick, which, ascending, passed over a movable wheel fixed at the top of a staging some 60-ft. high, and bearing a striking resemblance to the shears at a dockyard. On leaving the shears the rope descended and passed under another wheel fixed a few feet above ground, whence for the moment it escaped from our range of vision. After the lapse of a quarter of an hour the top of a tube, from 9 to 10-in. in circumference, attached to the rope, made its appearance, and was drawn up to within a foot of the wheel. Meantime a workman stationed at the mouth of the well had thrown a rope round the tube, which was composed of the stems of a number of bamboos fixed together, and, immediately the lower end appeared, he drew it to one side and over a wooden reservoir built into the ground. Embracing the tube with his left arm, he plunged an iron rod which he held in his right hand into the bottom, and, raising a leather valve which was there adjusted, allowed the contents, consisting of black, dirty-looking water, to escape into the reservoir. This was the brine. The tube was again placed over the well, and descended with great rapidity.

Whence the motive-power that raised the brine? Following the rope after it left the second wheel I found that it entered a large shed, the floor of which was several feet underground. In the centre of the building was an enormous bamboo wheel or drum, 12-ft. in height and 60-ft. in circumference, placed on a vertical axis, to which the rope was attached 6-ft. from the ground. As



TZELIUTSING SALT INDUSTRY.—TOOLS FOR RECLAIMING BROKEN CABLE.

I entered four huge water-buffaloes were being harnessed at equal distances to the circumference of the drum; each buffalo had a driver, whose duty it seemed to be to belabor the animal with a short, stout hempen rope to induce it to break into a trot. As the drum revolved the rope coiled round it at a sufficient height

TZELIUTSING SALT INDUSTRY.

These hand, or rather foot tread mills, draw the brine up to a level for its gravitation into the gas fires. These men work from daylight to dark, getting pay by the boat load.

not to impede the buffaloes. For a quarter of an hour—that is, until the tube had been again raised—this unmerciful beating went on, when the poor beasts, exhausted and white with froth, were unharnessed and led back to their stable, whence a fresh relay was brought. When the animals were unharnessed and the signal given the drum reversed with great velocity, creating a violent wind all round.

Forty animals were employed at this well, and each relay raised the brine about ten times every twenty-four hours. They are specially selected for the work, and cost from Tls. 40 to Tls. 50 apiece. The specimens I saw were fat and in excellent condition,

TZELIUTSING SALT INDUSTRY.—PANORAMA OF ONE OF THE WELL DISTRICTS.

The boats in the foreground are receiving brine from bamboo pipe lines, which stretch up the incline to the numerous wells, marked by derricks.

but although they are carefully fed and attended to, each costing 300 cash a day, their staying power does not exceed five years. Many even fail within the first year; nor is this to be wondered at, for the make of the animal fits it for a slow, plodding life only.

Retracing my steps to the large reservoir by the well, I found that the brine was being carried off in bamboo pipes laid down between it and smaller wooden reservoirs in the evaporating sheds, which I next visited. On the floors of the latter rows of brick furnaces, with round openings at the tops, were built. On each furnace rested a round, shallow iron pan, about 4-ft. in diameter, filled with brine conducted in open bamboo pipes from the reservoirs, which occupy one side of the shed. Where was the fuel? Under each pan was a flame blazing from a bamboo tube coated with lime and fitted with an iron burner while all round flames burst from smaller upright tubes and lighted the sheds, for there was no cessation, night or day, in the work of evaporation.

I was next conducted to the 'fire well,' whence the fuel is procured. It is quite close to the brine well, and was carefully built over—bamboo tubes covered with lime—to prevent escape—ramifying from the cap covering the mouth to the evaporating sheds. There can be little doubt that the 'fire wells'—which are nearly all situated within the town—contain petroleum, from which the vapour or gas arising supplies the natural fuel. They have, however, never been worked for the oil. The stench which permeates the whole town reminds one forcibly of a gasworks, but the gas has not, as in some parts of Ohio, been utilized to light the streets. All the wells, which are worked by private Companies,

TZELIUTSING SALT INDUSTRY.—THE BRINE TRANSMISSION SYSTEM.

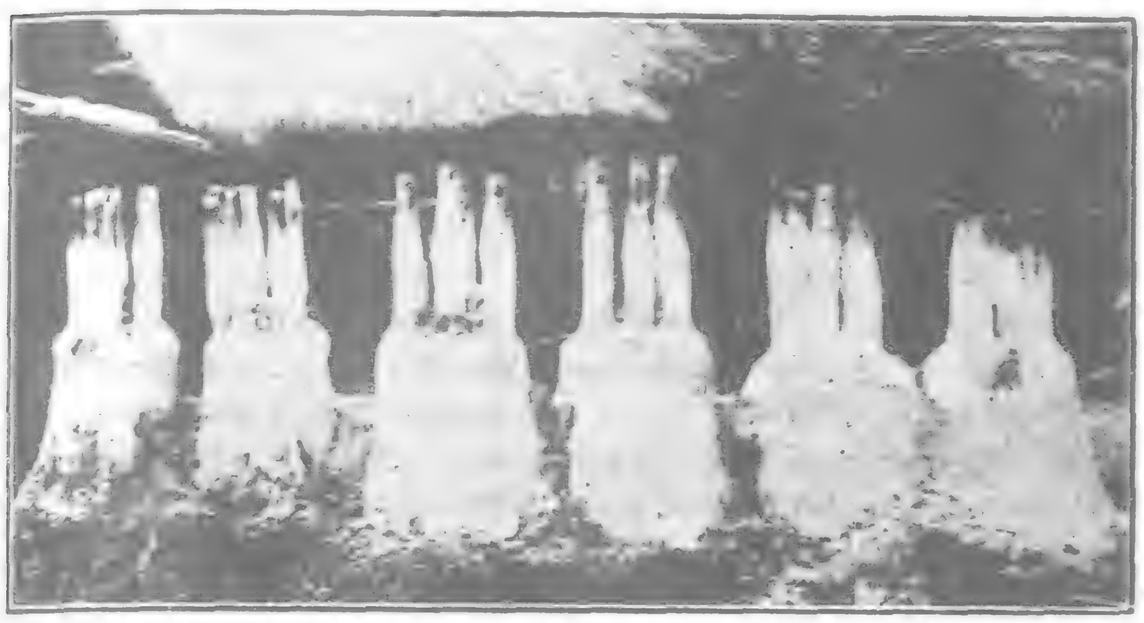
Small houses where the horses treat the brine up to the level of the next house, and thence over the hill to fall by gravity to the gas fires.

are now under Government control, and there is an office established at Tzeliutsing through which all salt transactions are carried on. The actual cost price of the salt is 13 or 14 cash a catty, but the Government manages to extract from buyers 22 to 23 cash.

The salt is of two kinds—pan, or lump, and granular salt. The former is from 2 to 3-in. in thickness, and is of the same shape and size as the evaporating pans. In preparing the latter, bean flour is used to give it a whiter appearance. The work of evaporation occupies from two to five days, according to the strength of the gas flame. As the salt wells number over a thousand, and the "fire wells" only about a score, much of the brine is carried into the town for evaporation. Pans are leased by the year, the privileges costing about Tls. 40 each. A contractor supplies the pans, which weigh 1,600-lbs. apiece, for from Tls. 30 to Tls. 40 a year each, the old pans, which are changed about once a fortnight, being the property of the contractor. Brine is found at depths varying from 700 to over 2,000-ft., and from a dirty yellow in the shallower, becomes a deep black in the deepest wells. Twice as much salt is evaporated from the black as from the yellow brine—the deeper the well the stronger the solution.

As the region in which the wells are situated is of sandstone formation, the difficulties of boring to these great depths, even with primitive machinery, are not very great. A bamboo lever is erected over the spot where the operations are to be carried on; an iron jumper, over 100-lbs. in weight, in attached by a bamboo rope to the thin end of the lever; on both sides of the

thicker end scaffoldings with plankways are built; several men jump simultaneously from the planking on one side to the planking on the other, using the lever as a stepping stone; and the jumper is raised, released, and falls, crushing the stone, a rotary motion being imparted to the weight by a man who stands by the mouth of the well, and twists the bamboo rope as the lever is about to drop. The rope is lengthened as required by adding strips of split bamboo.



TZELIUTSING SALT INDUSTRY.

After a gas well is struck, the gas is allowed to escape, into tubes like the white tubes shown in the picture. The gas escaping from these is lighted and allowed to burn at will, thus (the natives say) assuring its not going back into the well, and being lost. These fires light up the place for miles at times, and are a dead loss, until the brine vats can be placed for distilling the brine.

I have heard doubts expressed as to the depths of these wells, but the figures given are unimpeachable. The well which I visited was over 2,000-ft. in depth, and I arrived at this result by a very simple calculation. The drum was 60-ft. in circumference, and thirty-four coils of rope were wound up before the tube reached the mouth of the well. In boring in the vicinity of the town, at least it is impossible to predict whether gas or brine will be struck, but as both are valuable, the result is always satisfactory.

The diameter of the mouth of the well is usually from 9 to 10-in., and the diameter of the bamboo tube-bucket 4-in. The length of the latter depends on the height of the tripod shears, and may run to 80 odd feet. The wells are lined for the first 200 or 300 ft. with cypress wood in lengths of about 6-ft. These are first cut out in two lengthways and then hollowed out. A bamboo tube-bucket costs about Tls. 20, and the hemp rope costs another Tls. 20. Mules, oxen, and water buffaloes are all used for turning

BAMBOO PIPE LINES FOR CONVEYING THE BRINE TO THE EVAPORATORS

the whim, or drum, which winds up the bucket. The cost of raising the brine runs from 12 to 14 cash a catty, and of evaporation 2 to 4 cash; but the latter is regulated by the price of coal, which is brought into use only when the gas is being employed to its utmost capacity. These prices refer to a brine well in juxtaposition to a hydrogen well; but, as much of the brine has to be carried to the gas evaporating sheds, the cost of carriage has to be added, and it may be taken for granted that 20 cash represent the fair average value of a catty of salt before taxation. The amount of salt evaporated from the brine rises from 7 per cent. in the case of the yellow liquid from the shallower well to 13 per cent. for the black drawn from the deep wells. In manufacturing granular salt from black brine the following purifying process is adopted:

Yellow soya beans are ground up with cold water in a stone mill. The liquid with the ground beans is collected, poured into a pan, and warmed. It is then filtered through a strainer on the top of the boiling brine, causing precipitation of the impurities in the latter. The floating impurities are skimmed off, and the salt crystals baled into a bamboo basket, which retains the solid matter. The salt crystals are now fairly white; but if still further purification is desired, the water in the pan is poured over them and drains away any remaining impurities. The liquid so drained, called *"Tan Pa,"* is used to cause coagulation of the legumine in the manufacture of beancurd, and, for convenience of transport, it is evaporated, resulting in a substance as hard as stone.

A CLOSE VIEW OF A WELL MOUTH AND THE BASE OF THE SHEAR LEGS

It is hoped to begin regular passenger and mail service by aeroplane in China by the Autumn of 1919, according to a representative of the Peking Syndicate, agents for the Handley-Page Company. Six Handley-Page machines are expected to arrive in Shanghai in August, and they will be assembled in Shanghai and flown to Peking. Experts will accompany the machines to the Far East and will place themselves at the disposal of the Chinese Government, though it is expected that the aerial service will be taken over by Chinese aviators. The planes are of a type having a capacity of 20 passengers and designed with accommodations for cargo and baggage or mails. They are driven by two Rolls-Royce motors of 350 horsepower each and attain a speed of 100 miles an hour when loaded to capacity. The passenger accommodations will be as luxurious as those of a Pullman car, with big, comfortable chairs, rich fittings, and even a passage or promenade where passengers may stretch their legs. The passenger compartment will be enclosed and electrically heated and lighted. The routes of travel have not yet been definitely determined upon, but it is probable that all important cities in North China, such as Peking, Tientsin, Shanghai, and Hankow, will be linked by regular schedules. The aerial service will be under the direction of Major-General S. Y. Ting, head of the Aviation Department of the Ministry of Communications.

# Why Foreigners in China are Perturbed

## *An Analysis Explaining the Recent Action of Foreign Residents in China in Denouncing the Paris Peace Conference's Decision Regarding Shantung*

It is not easy for any non-Japanese foreigner living in China, in touch with current events, and in the least degree sympathetic with the new hopes and aspirations of the Chinese people, to write dispassionately about the settlement that the Peace Conference in Europe proposes to make of the Shantung issue. It is easier now, perhaps, than it was. Dr. Wellington Koo has put it on record that Mr. Lloyd George had never heard of the Twenty-one Demands, or at any rate did not know what was in them. If even the most charitable construction be placed on this statement, it means that in the council chambers of Europe there is a vast ignorance of what has been happening in the Far East during the past five years, and the decision reached seems to be evidence conclusive that there is also at least equal ignorance of the whole history of Far Eastern affairs for the last quarter of a century. One's anger is, therefore, turned rather to sorrow, and there is some sort of inclination to forgive the peacemakers of Europe on the ground that they know not what they do. But, however ignorant the chancelleries of Europe and the chambers of the Conference may be as to Far Eastern affairs, the foreign residents in the Far East are well aware what has been happening, and they are now speaking their minds fairly freely on the subject of the Shantung settlement. Within the past three weeks at least four foreign bodies, each representative in its way, have placed on record in a very public manner their opinion of the decision of the Peace Conference. These four bodies are the Peking Missionary Association, the American Women's Club of Shanghai, the American University Club of China, and the Anglo-American Association of Peking. Other bodies, we know, have expressed their opinion in the same sense as these four bodies, but they have acted privately and their communications with their governments have not been made public. The four bodies just mentioned have passed resolutions deploring the decision of the Peace Conference with regard to Shantung, and as the four bodies are thoroughly representative of the foreign communities in China and the resolutions they passed adequately summarize the feelings of the non-Japanese residents here, it may be well worth while to examine those resolutions in order to ascertain what are the main points on the lamentability of which non-Japanese foreign opinion is unanimous.

Two preliminary points need to be cleared away. Firstly, we do not know that there exists amongst the non-Japanese foreigners in China any feeling of hostility to the Japanese as such. From the days when the Japanese beat the Chinese in the Sino-Japanese War to the beginning of the War now ending there had been a growing admiration of the Japanese. This admiration was greatly increased when Japan with the assistance of British capital fought her great drawn war with Russia in Manchuria. The signature of the Anglo-Japanese alliance, its renewal, and half a score of other great events tended to foster, especially among the British people, the feeling of admiration. The British press, both in China and elsewhere, was never weary of singing the praises of the Japanese people. So it was until the beginning of the War. During the War the eulogies continued, any dissentient note being suppressed either by a sense of loyalty to an ally or by the more prosaic fear of the censor. Now, all at once the British and the American press become extremely critical of Japan and the Japanese, and, though it may seem unkind and perhaps somewhat contradictory of immediately preceding statements to say so, this critical attitude, at least so far as the non-Japanese foreign communities in China are concerned, is perhaps more truly a reflex of the general mind than was the unrestrained eulogy of earlier times. Yet, the earlier worship was not insincere, it was not mere lip-service. The admiration for Japan and the Japanese is probably as great as ever it was, but the very sincerity of the admiration compels a sincerity of disappointment that Japanese action at the Peace Conference has been what it has, and the jealousy of Britons and Americans for the honor, and, to put it at the lowest, the mere reputation of their native countries, which are being led to commit grave errors, simply intensifies the disappointment. Secondly, the action of these representative bodies is not based simply and solely, indeed, not mainly, on the legalistic aspect of the issues. These bodies are convinced that legally the decision reached is indefensible, that on technical grounds the decision would be quashed by any competent judicial body; but that fact is set on one side. The case is one in which equity and strict legality support each other, in which, in the opinion of men of the type who form the bodies whose resolutions are before us, the decision reached sets legality and equity both at naught. It would not have been difficult for the four associations to frame an irrefragable legal appeal against the decision, but that fact is assumed in each case. The resolutions are drawn in what it was fondly hoped was to be the spirit of the new era, the spirit that quickeneth, not the letter that killeth. Very broad ground is taken: the "perfectly justified" "disappointment and apprehension" of the Chinese: the danger of a militaristic China: the unreliability of Japanese pledges; the creation of conditions that must inevitably produce discord in the Far East: subversion of the principle of self-determination and denial of the principles of the open door and equality of opportunity. These are the grounds taken, and when we have noted one other point, small perhaps in appearance but of essential character, we shall try to ascertain by what reasoning non-Japanese foreigners in China are convinced that they are justified in taking the stand they do. The minor point is this, that in the main the four bodies making these resolutions have set aside the economic issue. Why? Not because it was not there, not because it was not of importance, not because they did not know of it, but for the same reason that they set aside the question of mere legality, even though to have set forth the economic argument would have greatly strengthened their case, just as to set forth the legal argument would have done so. It is perhaps natural that in the main these four bodies ignored the economic argument, the international trade com-

petition, for they were not mainly bodies of men concerned directly in trade and commerce. Only very indirectly can the Peking Missionary Association, with a membership of between 150 and 200, be regarded as interested in international economics. The American Women's Club at Shanghai with 400 members is not primarily interested in economic matters. The American University Club of China, though doubtless it contains among its 300 American members a proportion of business men, is preponderatingly made up of men whose primary interests are not economic. The Anglo-American Association of Peking, of about a hundred members, has a larger proportion of its membership drawn from circles directly interested in the economic consequences of the decision reached than has any other of the four societies, but even the resolution passed by this Association takes much broader than mere economic grounds for its action. The point is that these Associations from their very constitution are very largely outside economic influences, and, therefore, their resolutions cannot be attributed to commercial chagrin, economic envy or uncharitableness of any kind whatsoever.

We may now examine the reasoning that leads non-Japanese foreigners in China to take the ground they do, especially as expressed in the resolutions. The first point we noted was that the Chinese were "perfectly justified" in their "disappointment and apprehension," as the resolution of the Peking Missionary Association[1] puts it. When China at the invitation of the United States came into the War the Chinese were given every reason to suppose that a new international era had opened for her. Without making specific promises the Ministers of the Allied Powers informed China in almost identical terms of their "solidarity, friendship and support" and assured the Chinese Government that they would do all that devolved upon them in order that China might enjoy "in her international relations the position and regard that are due to her as a great nation." How far such promises were compatible with the secret treaties that Britain, France and Italy already had with Japan regarding Shantung we need not stay to inquire, as it is quite possible that the Ministers of these Powers in Peking were ignorant of the commitments of their governments; but of the interpretation of the message to the Chinese at the time there can be no doubt. To the Chinese it meant that Allied "solidarity, friendship and support" would avail her when Japan was called upon to fulfil her promises to restore Tsingtao to China at the end of the War. It also meant that although technically it might for the time being be impossible to get rid of the stigmata of inferiority such as extraterritoriality, imposed Customs tariff and indefensibly high indemnities, yet the spirit that would animate the Allied Powers in their dealings with China would soften the acerbities of intercourse. The subsequent Allied action with respect to the tariff and the indemnities strengthened the conviction, and in the minds of the Chinese and of non-Japanese foreigners in China the instant inference was that China would be enabled to come to her own again in Shantung. It was that principally. Now that, as far as can be seen, Japan's position in Shantung is to be made much more impregnable than that held by Germany, the "disappointment and apprehension" do seem to be "perfectly justified."

The second ground[2] taken by the supporters of the resolutions is that of the danger of a militaristic China. To those not directly watching the current of events in China this may seem an illogical conclusion at which to arrive from premises the terms of which are given by a Peace Conference in Europe; but there is an incalculable logic here nevertheless. Japan has been dominated for centuries, and especially for the last quarter of a century, by the military caste, and is so dominated at the present moment. At the dictation of the military caste every opportunity of imperialistic expansion has been siezed. Korea has passed into Japanese control. Manchuria is rapidly becoming a Japanese colony. Eastern Inner Mongolia is earmarked, and there would seem to be evidence justifying the belief that Japan hopes to secure the reversion of Russian treaty privileges throughout the whole of Mongolia. It is the militarist expansionist spirit that is prompting Japan to expand in Shantung. The civil strife in China during the past two years, at least, has been made possible only by Japanese gold, lent to both Northern and Southern factions in China, in each case on such terms as to secure to Japan control of Chinese politicians and military men. The whole of the agreements between China and Japan, nominally designed to enable China to participate in the War, makes for Japanese control over the raw materials of war in China. The backing of Japan has gone mainly to the militarists in China. The reactionary party in China, which maintains its hold by material power, and not by the number or the value of its ideals—for both are at a minimum—looks directly to Japan for its inspiration, its technical guidance and its practical hold on power. The decision of the Peace Conference endorses the immoral agreements made between the militarists in China and those of Japan, and at the same time puts the seal of legality upon agreements signed by China only under threat of an ultimatum, as in the case of the 1915 treaty; while it also gives a semblance of authenticity to the secret agreements, signed under the threat of the possibility that Japan might defect from the Allied side, between Japan of the one part and Britain, France, and Italy of the other. The inevitable trend of the Paris decision will be to give sanction to all this, and this sanction will take two forms. On the one hand it will confirm the militarism of the militarists, convince them that after all the palaver about right being might, the long purse, the big stick and the heavy guns are the things that count, even with the liberal Powers; and on the other hand it will strongly tend to the conversion of the generally pacific mass of the Chinese people to the same belief, and one-quarter of the human race once imbued with this doctrine will be a menace to the peace of the world such as

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(1)—The following is the resolution passed by the Peking Missionary Association: As a body of foreign residents in Peking and the neighborhood, who, by reason of their intimate relations with very various classes of Chinese may claim to be in peculiarly close touch with Chinese thought and feeling, the members of the Peking Missionary Association beg respectfully to draw attention to the deep disappointment and apprehension caused in all the best sections of Chinese opinion by the published accounts of the action of the Peace Conference at Paris relating to Shantung. This disappointment and apprehension is, in the judgment of this body, and in the light of all the information at our disposal, perfectly justified. The most ardent hopes were widely entertained by the Chinese people that the Peace Conference would restore Shantung to China, bringing to an end all agreements with or concessions made to Germany. The Chinese further hoped that such a decision by the Peace Conference would signallize the beginning of a new order in international affairs as regards the Far East, and secure to China peaceful development in harmony with all other nations. The settlement of the Shantung question, as made known in the press, has dashed those hopes to the ground and created a very serious situation. It is the gravity of this situation for Japan as well as China that we as a missionary association wish to emphasize with all the force at our command. We feel that a movement has been started in China as the natural result of the disappointment above referred to which is likely to grow in strength and to persist and which will if it is disregarded, and its aspirations remain wholly unsatisfied, seriously menace the peace of the Far East. We feel bound to express our conviction to this effect.

(Signed) W. B. PETTUS, President.

(2)—The resolution passed by the American University Club is as follows: The American University Club of China, composed of nearly three hundred American University men in China, and more than a hundred Chinese graduates of American Universities, views with gravest concern the decision of the Peace Conference to give over to Japan German rights and interests in Shantung, irrespective of pledges which Japan will make to return them to China unless these pledges are accompanied by guarantees that will be effective within a reasonable time, otherwise all pledges regarding the maintenance of the open door or equal opportunity will become mere scraps of paper and China is endangered by a militarism controlled by Japan which may involve the world in another catastrophe.

the Central Powers of Europe never were and never could be. Already the militarists in China and Japan, even before the Peace Treaty is actually signed, are teaching this doctrine with unblushing effrontery.

The third ground on which non-Japanese foreigners in China deplore—as do the resolutions of the American University Club and the Women's Club, [3] —the decisions reached, is that Japanese promises are apt to become scraps of paper. The full significance of this is only realizable by those who are living in the Far East, and those so living here base their beliefs in this direction, rightly or wrongly, upon such records as the promises on the part of Japan of Korean independence contained in the Treaty of Shimonoseki 1895, in the Japan-Korean Protocol 1904, and in the first Anglo-Japanese Alliance; the open door and equal opportunity in Manchuria; the original promise of the restoration of Tsingtao to China, modified several times; all these promises are believed to have been broken. These broken promises, however, are but part of the indictment. There is believed to be a general absence of good faith on the part of Japan that has created a deep suspicion in the minds of other foreigners in China. Examples are to be found in the way in which Japan evades the international obligation not to lend money to either of the warring factions in China; in the fact that the Japanese Post Offices in China regularly transgress the international agreements as to foreign post offices on Chinese soil; in the apparent use of Japanese wireless stations in China for ordinary commercial purposes; in the way in which, quite recently, Japan sent to Siberia ten times the number of troops internationally arranged for; in the claims her statesmen have made that Japan was chiefly responsible for the revision of the tariff and the presentation to China of the first *aide-memoire;* in a thousand petty ways; and notably in the prevarication that accompanied the presentation of the Twenty-one Demands in 1915, the details of which need not be recounted. Unless this deep-rooted suspicion has some basis in fact such as these it is difficult to account for two of the resolutions with which we are concerned containing demands for "guarantees" that the pledges of Japan will become "effective within a reasonable time" and fears lest Japanese promises should become scraps of paper. It is certainly very regrettable that this should be the general appraisal of the value of Japanese promises amongst other foreigners resident in China, but knowing the grounds upon which it is based it is surprising that those Japanese who realize the importance of solid friendship with China do not make the most strenuous efforts to remove them.

The fourth ground of criticism of the Peace Conference decision is one of the most important and shows an appreciation of the play of cause and effect in the Chinese history of the last quarter of a century that is apparently lacking in Peace Conference circles. The opinion is expressed in the Anglo-American Association resolution [4] that this decision will produce conditions that must "inevitably" bring about extreme discord between Japan and China, perpetuate the conditions created by Germany's aggressions in 1898 and cannot make for the peace of the Far East, for political stability in China or for the development of trade and commerce equally open to all. This "solemn conviction" is based upon a recognition of the fact that it was very largely the German aggression in Shantung in 1898 that led to the almost continuous disturbances that have kept China and the Far East in a ferment for the past twenty years. Of the part that the German aggression in Shantung formed in the provocation of the Boxer movement there can be no question. Every responsible historian of Far Eastern affairs recognizes it—Morse [5], Richard [6], Couling [7], Martin [8], Arthur Smith [9], to name but a handful. It was the German occupation of Kiaochou that led to the Russian occupation of Port Arthur, which in turn led to the British occupation of Weihaiwei, and these to the French occupation of Kwang-chow-wan. Russian occupation of Port Arthur and the connection of that port with Russia itself through the Chinese Eastern Railway was largely the cause of the Russo-Japanese War. The upheavals of 1900 and 1904-5 created the spirit of indiscipline that was not exorcised by the Revolution, and that has been perhaps one of the most persistent and unwholesome signs of the times in China under the Republic. The Anglo-American Association's resolution expresses very concisely, yet with absolute accuracy, the key idea of the history of the Far East for the last two decades. The Peace Conference decision will, as the Association clearly sees, reimpose the conditions created by the German policy in Shantung in 1898. Not only so. The Association might have gone further, and asserted that the Peace Conference decision would have accentuated those conditions, for Far Eastern experience of Prussian methods interpreted by the militarists of Japan is that chastisement with whips is replaced by chastisement with scorpions. Wherever Japan has obtained a privileged position in China she has not only managed to oust all other foreigners, by means, it is alleged, that have seldom been above reproach, but she has managed to secure for herself the hostility of the Chinese people. This is emphatically the case, and has been so for years, in Manchuria, despite the excellent development work carried out by certain Japanese concerns, and the history of Shantung since the Japanese occupation is but an accentuated form of the same sort of thing. It is a peculiar fact, too, that the Japanese have not won affection either in Korea or Formosa. To say these things is not in any way to be unkind to Japan, or to depreciate her in any way. There is many a brilliant scholar who cannot teach, many a brilliant scientific researcher who is hopeless as a professor. We are simply recording the fact

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(3)—The resolution passed by the American Women's Club of Shanghai reads as follows: Americans in China view with the gravest concern the decision of the Peace Conference to give over to Japan Germany's rights and interests in Shantung irrespective of pledges to return them to China, unless those pledges are accompanied by guarantees that will make it patent to all that they will be effective within a stated time; otherwise all pledges regarding the maintenance of the Open Door or equal opportunity will become mere scraps of paper and China will be in danger of a militarism controlled by Japan which may involve the world in another great catastrophe.

(4)—The resolution of the Anglo-American Association of Peking reads: While recognizing that a supreme attempt is being made to set up a new international order in which secret treaties, political aggression and the settlement of international disputes by war shall have no place; and appreciating that these lofty aims can only be achieved by overcoming difficulties of which we in China have not a full knowledge; this Association learns with the keenest disappointment and deepest sympathy with the Chinese people the decision of the Peace Conference to transfer to Japan the former German rights in Shantung.

We express our solemn conviction that this decision will create conditions that must inevitably bring about extreme discord between the Chinese people and Japan, and raise a most serious hindrance to the development of the economic interests of China and other countries. A settlement which perpetuates the conditions created by Germany's aggression in Shantung in 1898, conditions that led to similar action on the part of other states, that were contributing causes to the disorders in North China in 1900, and that made inevitable the Russo-Japanese war cannot make for peace in the Far East, for political stability in China itself, nor for development of trade and commerce equally open to all.

Further, the evil consequences of conditions which are not only subversive of the principle of national self-determination, but also a denial of the policy of the open door and of the principle of equality of opportunity, will be greatly accentuated if Japan, a near neighbor, be now substituted for Germany whose centre of political and economic activities was on the other side of the globe.

*Therefore, we, the members of the Peking Anglo-American Association resolve that* representations be made to the British and American Governments urging that the States taking part in the Peace Conference devise and carry through a just settlement which will not endanger the safety of China and the peace of the world.

(5)—Morse: International Relations of the Chinese Empire, Vol. III, Chap. VII, par. 13, p. 169.

(6)—Richard: Forty-five Years in China, Chap. XV, par. 2, p. 294.

(7)—Couling: Encyclopaedia Sinica, Art. "Boxerism."

(8)—Martin: The Awakening of China, Chap. XXVII.

(9)—Smith: China in Convulsion, *passim.*

that Japan has not succeeded in winning affection for herself in Manchuria or in Shantung. After the first German fury had spent itself in Shantung there were evident signs of a lighter hand. The absolutely exclusive privileges were abandoned [10], the policy of the open door was expressly asserted [11], non-German commercial houses were as free to obtain eligible sites in Tsingtao as were German firms, there was no attempt to exercise civil and criminal jurisdiction over the Chinese in the railway zone, there is no evidence that discriminatory rates for German products obtained on the Shantung railway. If experience elsewhere counts for anything, the Japanese policy is the reverse of all this; and the short experience there has already been of Japanese occupation in Shantung warrants the assumption that experience elsewhere should count for something. On the whole, then, the non-Japanese foreigner in China has reason to expect that "the conditions created by Germany's aggression in Shantung in 1898" will not simply be perpetuated by the Peace Conference decision, but accentuated, and that being so, there lies before the Far East a period of stress and strain that is almost sure to express itself in calamitous breaches of the peace. This is the more certain in that the Chinese nation is now awaking to the new sense of its rights, claims and responsibilities. Viscount Ishii did not want China to come into the war because Japan could not view without anxiety the moral awakening of a nation of four hundred million people, close neighbors of Japan. Viscount Ishii recognized that the moral awakening would come with China's entry into the War. It has come, and the signs of it are here with us every day. It is foolish to tease a giant whose mere physical strength could on occasion crush the life out of us. It is worse than foolishness to thwart a giant whose moral awakening has rendered him specially sensitive to moral issues in general and his own aspirations in particular. That is what an attempted re-imposition of the conditions of 1898 will mean, and if the giant in his half-fury, half-indignation—righteous indignation—loses his temper and turns on his tormentors and thwarters, who shall blame him?

There is hardly need to do more than set forth the fact that the Peace Conference's decision subverts the principle of self-determination and denies the principles of the open door and equal opportunity. To hand over Shantung or a zone in it to Japan, in face of the loud protests against even mere Japanese occupation supposedly only for the period of the War, and still more in face of an opposition that is so articulate throughout the whole country that even a plebiscite would be a supererogatory farce, is, if the voice of the people is the voice of God, to defy Providence. As to the principles of the open door and equal opportunity, it would be possible to fill columns with examples of Japan's flouting of them; but all that it is necessary to do here is to state the bare fact that every business man in the Far East believes that Japan pays no heed to such things. As economic conditions have an influence in making war or preserving peace, and as the economic advantages that Japan will seize for herself from the moment she enters by the will of the Peace Conference into the reversion of German privileges in Shantung will create economic conditions inimicable to peace, and as these things are known to the whole Far East, it is not surprising that the Anglo-American Association of Peking has a "solemn conviction" that the decisions reached are such as will "endanger the safety of China and the peace of the world."

It may be unfortunate, it is certainly regrettable, that non-Japanese foreigners in China should have reached the conclusions expressed in the resolutions, but could it in the light of the reasoning we have set forth and which we believe to be the general line of argumentation by which these conclusions have been reached, be other than inevitable? For the time being, at any rate, the logic of facts is proving too strong for sentiments of admiration, and however much other foreigners in China may be naturally friendly to Japan and especially however much there may be bonds of personal friendship between individual Japanese and other foreigners—as we know that there are in very large numbers—the compulsion is no longer on them to refuse to see facts, and quite as much in the interests of Japan as in those of China or of themselves it is their duty to state what they believe the facts to be.

We know that Japanese officialdom denies the existence of the conditions which generates suspicion of Japan; we believe that the great financial and manufacturing and commercial section of the Japanese people, who suffer immediately predatory politics begin to operate in China, deplore the constant causes for friction, and at times are of divided mind as to the justness or otherwise of the opposition exhibited towards them. If the charges against Japan are unjust, if the suspicion is ill-founded, then there is a simple way for Japan to show the world that she is tired of the accusations and is desirous of setting at rest once and for all the wrong impressions which exist regarding her, namely, to issue orders and stringently enforce them making the territories in which she is dominant really open to trade and commerce, abolishing special privileges and in every sense of the word keeping the door open and making equality of opportunity effective in letter and spirit. Japan's trade with China in normal times is enormous. It can become a thousandfold more valuable if Japan will of her own accord do a simple act of justice to the Chinese—return Tsingtao and with it the special economic concessions secured at the Peace table. The friendship of the Chinese will be cheap at the price, while their continued hatred will make Japan's gains costly in the extreme.

(10)—By agreement between the Shantung Provincial Government and the German Shantung Company, dated July 24, 1911.

(11)—Memorandum from Imperial German Embassy, Washington, to U.S. State Department, February 14, 1902.

UNLOADING SUPPLIES AT VLADIVOSTOK

# The Philippine Coconut and its Uses

## *Coconut Oil takes Second Place in Islands' Exports*

BY P. J. WEBSTER, AGRICULTURAL ADVISER, DEPARTMENT OF MINDANAO AND SULU.

*The development of the coconut oil manufacturing industry was the leading feature in the export trade of the Philippines during the past year. The shipping situation favored exports of the manufactured product rather than copra, and the installation of mills progressed so rapidly that at the end of the year it was estimated that crushing capacity had exceeded the production of copra. The result of this was that exports of copra declined heavily, almost ceasing in the closing months of the year. On the other hand, exports of coconut oil increased over 150 per cent. and assumed a prominent second place in the trade of the Islands; although hemp firmly held first place. In 1918 the exports of coconut oil aggregated 254 million pounds valued at $31,664,159, practically all of which was purchased in the United States. Exports of copra were but 54,192 long tons valued at $5,188,515. The exports of the oil represent a consumption of 240,000 long tons of copra in the crushing mills.*

THE EDITOR.

Among the major plant industries of the tropics, sugar cane is one of the oldest and rubber is the latest addition to the more important crops. While copra "arrived" somewhat earlier than rubber, it seems but yesterday when the coconut palm was associated chiefly with tales of shipwrecked adventurers, and pirates, and the cannibals of the South Seas. But nothing is sacred in these prosaic days and among other more or less romantic objects the coconut palm has also been pressed into service.

Even before the beginning of the agricultural era of the coconut, this tree was quite extensively planted by the Filipinos; hence the Philippines were in excellent position to profit by the rapidly increasing world's demand for copra from the very beginning of the copra trade. From thence to coconut growing on a commercial basis was but a step. In the value of the output of coconut products, also, the Philippines closely approximates that of Ceylon, outranking all other countries except the Dutch East Indies and the Federated Malay States.

Following the lead of other great coconut countries, such as Java and Ceylon, the Philippines have, within the last few years, seen the installation of several coconut oil mills of varying capacities, one of which, in the perfection of its appointment and in the excellence of its product, is probably equal if not superior to all other oil mills in the Orient.

When we consider that the island of Ceylon, with an area of about 25,000 square miles. aside from its great tea, rubber and other exports, having no greater advantages in soil and climate, yet equals the Philippines in the value of her coconut exports, which islands total 119,000 square miles, the islands of Luzon and Mindanao exceeding 40,000 and 36,000 square miles in area respectively, there would appear to be ample justification for the optimism displayed by the biggest planters in the Philippines relative to the future great expansion of the coconut industry in the Philippine Archipelago.

While it is probably true that the coconut has played a more or less important part in human history since its food value was first discovered, an event that must have occurred at a very remote date, while it is frequently mentioned by the early explorers and writers on botany, while its habitat has long been cosmopolitan, and its uses have been many to the various people inhabiting the tropics of both hemispheres, the importance of the coconut in the world's trade is of recent date.

The coconut has, of course, been employed as a food by the native inhabitants in all countries since its introduction. In the trade it first became preëminent as an illuminant and for its employment in soap manufacture, but the elevation of the coconut palm to its present-day importance in tropical agriculture is due to the discovery about 30 years ago of the feasibility of the manufacture of vegetable butter and other edible related products from the oil and the dried nut, usually referred to as copra. Coconut oil is also an ingredient in many toilet articles, such as cremes and pomades, etc.

The coconut palm has attained its greatest agricultural development in the old world tropics and Oceania, where the nuts are converted to oil or copra; the comparatively light coconut crop produced in the western hemisphere is exported in the form of fresh nuts.

It would thus appear that Philippines rank as one of the principal copra and coconut oil producing countries in the world. However, some of the other countries have outdistanced the Philippines in the quality of the copra with the result that they command a considerably better price than the Philippine product. Due to the inferior system of handling in harvesting and inferior methods of drying the nuts, with the consequent low prices received for the copra, the annual losses to the Islands must be reckoned at several million pesos. Pratt calculated that the loss to the Philippine copra producer owing to an inferior product

TREES LIKE THESE YIELD THE NUTS NOW SUCH A BIG ITEM IN PHILIPPINES COMMERCE

as compared with prices for Ceylon copra amounted to more than P.4,100,000 in 1911.

With the many new uses which have been found for coconut oil, the price of copra in normal times has seen a steady increase and as yet there does not appear to be any basis for the fear that there will be an over-production of coconut oil and copra. The

REMOVING THE COCONUT MEAT PREPARATORY TO CRUSHING

temporary depression in copra prices due to the world war should not worry the far-seeing coconut grower. Now that peace is declared and industrial conditions will soon readjust themselves, the price of copra and coconut oil is sure to return to its former level, or to even higher prices than before. So far as the Philippine planter is concerned, it is believed that he could substantially increase his earnings merely by modernizing his methods of culture and of the preparation of the product.

The statement made by the late Mr. W. S. Lyon, fourteen years ago, in "The Coconut," the first publication on the subject under discussion issued by this Bureau, still holds good: "There is no other horticultural tropical product which may be grown in these Islands where crop assurance may be so nearly guaranteed, or natural conditions so nearly controlled by the planter who, knowing the correct principles" (of coconut culture) "has the facilities for applying them."

Considering the increasing demand for coconut products, with a plantation judiciously located and properly cared for, the coconut would appear to be one of the most desirable and profitable crops to occupy the Philippine agriculturist.

Then, again, it is probably no exaggeration to say that the recent construction of three large modern oil mills and many small ones in the Philippines marks a new epoch in the coconut industry of the Islands and places the grower in a more favorable position as to the disposition of his product than heretofore, since he is no longer at the absolute mercy of the foreign buyer of copra, and the successful operation of these concerns is likely to encourage additional investments along this line. A keener competition for coconuts and copra would tend to bring about higher prices for these products, and with local competing mills the better grades of copra would find a readier recognition than they have in the past and should thus encourage the manufacture of a product superior to that heretofore produced. Much as the production of the low-grade article of the past and present may be deplored, it must be recognized that the buyer, considering quantity rather than quality, has done nothing to encourage the grower to raise the quality of his copra and the lack of any stimulus to betterment would naturally tend to cause indifference on the part of the producer.

While even recently set out plantations still leave much to be desired in this respect, it is becoming gradually recognized that close planting is not compatible with good crops of coconuts. Steam and hot-air driers are being introduced, but are as yet not used to any appreciable extent. Broadly speaking, so far the use of these has not had the effect of raising the quality of the product, and most of the copra is still smoke dried

There are still very large areas of unoccupied land in the Philippines eminently adapted to coconuts, and with an ever increasing demand for copra and oil one may confidently anticipate a rapid expansion of the coconut industry of the Philippines. Coconut products have already taken second place in Philippine exports, and the possibility that they may soon supersede abacá as the chief export crop of the Archipelago is by no means improbable.

## Botany and Origin

The coconut, *Cocos nucifera L.*, is a tall, unarmed, monœcious palm, attaining a height of about 25 meters, with a stout, scarred trunk and swelled base, to which are attached 4,000 to 7,000 or more coarse roots, of a remarkably uniform diameter, about 9 centimeters thick, and from 5 to 7 meters long, rarely exceeding 8 meters except in very sandy, poor soil, spreading, seldom descending beyond a depth of 1 meter. The leaves are 4 to sometimes exceeding 6 meters in length, pinnate, and are crowded at the apex of the trunk; the petiole is stout, 1 meter or more long; the leaflets are numerous, up to 1 meter in length, linear-lanceolate, acuminate and leathery. The inflorescence is an axillary panicle up to 1 meter long; the flowers are numerous, small, fragrant and honey-bearing. The fruit is variable in size and shape, 15 to 25 centimeters long, obovoid to subglobose or somewhat flattened, frequently obscurely 3-angled, consisting of a fibrous husk in which is embedded a large seed or "nut," the meat of which lines the inside of the bony endocarp or "shell."

The coconut has been believed by some authorities to be of Asiatic origin, but that its original home was America is now generally conceded. Of prehistoric introduction into Polynesia and tropical Asia, the coconut did not become generally distributed throughout the American tropics until after the discovery of America. The coconut is now well dispersed throughout all parts of the tropics.

Owing to close spacing and no cultivation the average annual yield per tree in the Philippines is estimated to 25 nuts, in extreme cases running perhaps not over 10 nuts per coconut tree per year, and then the nuts are small and a large number is required to make a given amount of copra.

In a plantation located with due regard to the requirements of the coconut, and well managed, the yield may be conservatively estimated as follows: Seventh year, 15 nuts; eighth year, 25 nuts; ninth year, 45 nuts; tenth year, 70 nuts.

After this the last year's crop may be maintained annually for at least 50 to 60 years.

In Mindanao, on well cared for estate, 3,270 nuts of the Romano variety are required to make 1 metric ton of copra, while of the smaller nuts produced further north, from 4,000 to 5,600 nuts, of the variety commonly grown in Laguna and Tayabas known under the name "Laguna," are needed to make a ton of copra. In this connection, it may be stated that in Samoa and Trinidad, 6,000 and 6,450 nuts, respectively, are required to make a ton of copra.

Copra is the dried meat of the coconut. The meat is dried in the sun or in artificial driers, among which may be classed the so-called "tapahan" driers, in which most of the Philippine copra is prepared.

More recently the Bureau of Science, Manila, has experimented with a method for the preparation of copra by treatment of sulphur dioxide gas, and allowing the meat to dry without addition of artificial heat.

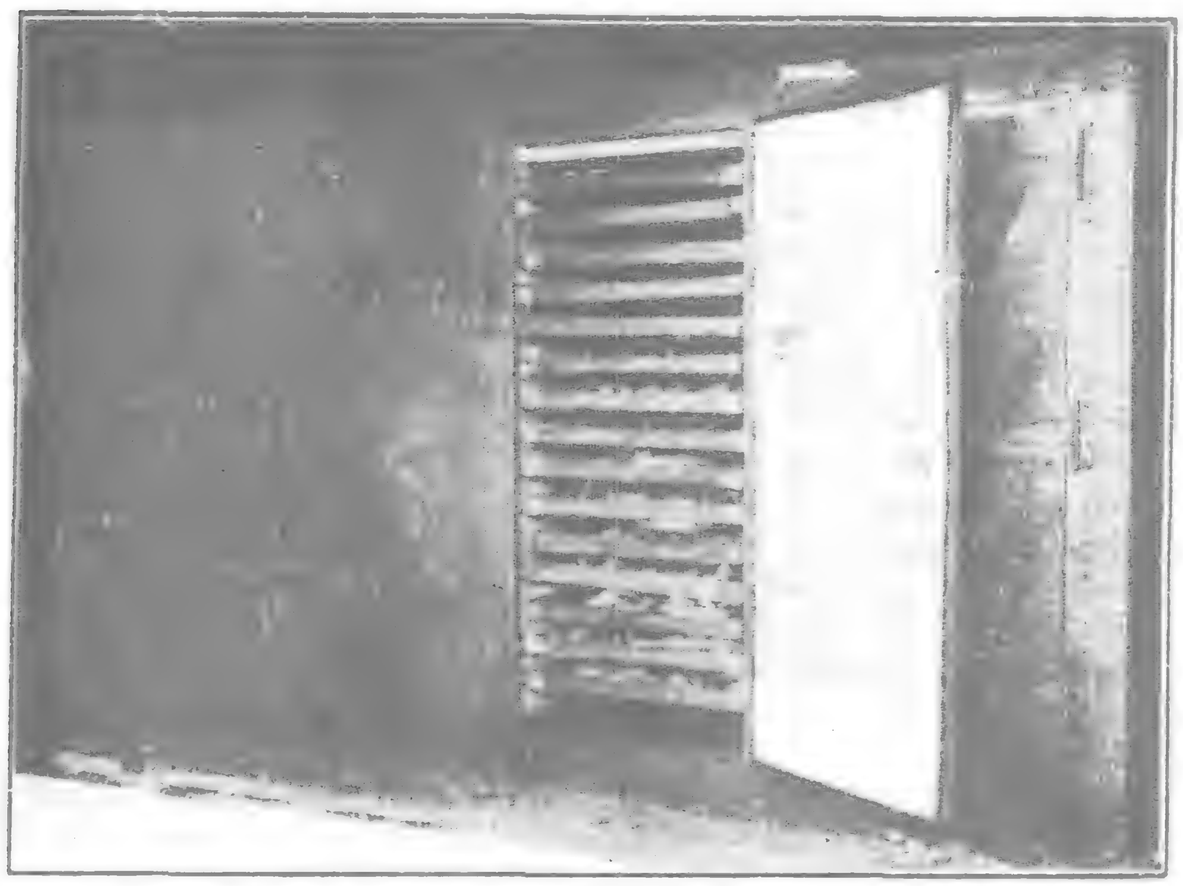
Where climatic conditions permit, sun drying may be resorted to; in other regions artificial driers must be used.

After the nuts are properly cured they are ready for husking, the first operation in copra making.

Many attempts have been made to invent a mechanical husker, and several power-driven huskers have been devised and placed upon the market. Whatever the reason, such as have been introduced into the Philippines do not seem to have proved satisfactory and none are now in operation, so far as the author is aware. All the husking in the Philippines is done by hand. Considering that an experienced husker can handle 1,000 or more nuts per day, at the present price of labor it seems unlikely that

power huskers will supersede manual labor for this process for some time to come.

The husking by hand is a very simple operation and consists of the use of an ordinary sharp plow-point pointing upward, set into a heavy block of wood, and so high that the point is a little above the knees of the husker.



A HOT-AIR COPRA DRIER, SHOWING THE ARRANGEMENT OF TRAYS

After husking, the nuts are cut in halves by a sharp blow with a bolo, which, where the copra is sun dried, are placed face up in the sun to dry for a short time until the meat separates from the shell. After this has been attended to the drying of the meat is completed in the sun and the copra is then ready for the market.

A few artificial copra driers are now being operated, but the amount of copra thus produced is still insignificant and for all practical purposes all the copra in the Philippines is still sun dried or smoke-dried. In the sun drying the halved nuts are first spread on the ground; as the drying proceeds the meat is collected and placed on palm-leaf mats. The smoke or "tapahan" dried copra is produced by placing the meat on bamboo screens over a crude furnace from which the heat and smoke rises and passes through the bamboo screen and meat. A high-grade product suitable for the manufacture of edible products cannot be made with the "tapahan" drier, which cannot be too strongly condemned, and as a matter of fact the abolition of this system of drying is only a question of time, when the difference in price between clean, sun dried or machine-dried and smoke-dried copra will be so great as to automatically force the "tapahan" drier out of business.

In the rainy coconut districts artificial driers will, of course, be imperative, but in those regions where the bright days are sufficient to render the perfect drying of the meat practicable, for instance in Cebu and Bohol, sun-drying is particularly well adapted to the needs of the small, individual producer, for sunlight and heat may be had without the asking. However, in order to produce a better and cleaner copra, the present custom of spreading the coconut meat upon the ground should be discontinued.

Modern copra driers may be divided into two types, those where the meat is dried by means of superheated steam, and those where the meat is dried by hot air. Both types are such recent inventions that we may expect considerable modifications in the models now in use until more perfect driers shall have been perfected.

## Miscellaneous Coconut Products

*Coconut Oil.*—Various local methods are used for the extraction of oil, nearly always from the fresh nuts, from which the meat is removed with the aid of steel burrs operated by a treadle.

The meat is then heated and the oil expressed. All methods employed are crude and much of the oil is lost.

In modern mills 65 to over 70 per cent. of the oil can be extracted according to the grade of copra.

*Copra Meal.*—This is a by-product of the modern oil mill, rather than of the coconut palm, which has made its appearance in the Philippines since the establishment of the coconut-oil mills. Where the oil is hydraulically extracted and the copra is sun or machine-dried the copra meal makes an excellent feed for domestic animals and an excellent fertilizer.

*Coir.*—Coir is the fiber obtained from the husk of the coconut that is used for various purposes wherever the coconut is cultivated to any appreciable extent. As an article for export coir is manufactured principally in Ceylon, India, the Laccadives, and the Federated Malay States. Coir was formerly of slight importance; but with the invention of coir manufacturing machinery, coir has found useful employment in many ways. It is now used in making cordage, rugs, mats, brushes, upholstery, brooms, mattresses, for caulking, and various other purposes.

The best grade of coir is obtained from the nuts before they are ripe, but the revenue from copra is so great as compared with that from the best coir that the production of coir at the expense of the copra is unprofitable; hence coir will only be a by-product so to speak, of copra, and at present it is not even that in the Philippines, practically all husks, except a few that may be used locally, being allowed to go to waste or used as fuel. So far as known, coir machinery has never been introduced in the Philippines, though it seems reasonable that if the conversion of husks to coir is profitable in other coconut-growing countries, it would be so here if properly handled. As the leading copra-producing country in the world it would seem logical that the Philippines should also take a lead in coir production and export.

Most of the coir is produced by first retting the husks in salt water and then beating them with mallets but within recent years fiber-extracting machinery has been invented that is said to be quite satisfactory.

According to the estimate made by Mr. M. M. Saleeby, formerly chief of the fiber division of this Bureau, the coconut husks from one hectare of coconuts at the yield stated above would produce per year 490 kilos of yarn and 70 kilos of brush fiber.

Among other possible by-products are buttons from the coconut shells.

It has been found that the fermented milk can be utilized in the coagulation of latex in place of acetic acid in the preparation of rubber. The burned shells might be utilized as bone char in sugar manufacture.

*Palm Wine and Arrack.*—Palm wine and arrack is obtained by cutting the immature inflorescence of the coconut and collecting, fermenting, and distilling the exuding sap that otherwise would have served for the development of the flowers and to form the nuts. The production of palm wine and arrack is of considerable local importance in most countries where the coconut is at all extensively cultivated.

From experiments made by Gibbs in this Archipelago, a tree will produce from 0.35 to over 1.40 liters of sap per day. From one to three flowerspikes are tapped at a time, the sap flow from an inflorescence, continuing usually from 25 to about 40 days. The sap is gathered two or three times daily by the collectors, who at the same time make a fresh cut off the inflorescence in order to increase the flow of sap. Bamboos are tied between the palms to serve as bridges for the sap gatherers.

*Vinegar.*—Excellent vinegar is also made from the fermented palm sap, but the utilization of the sap for this purpose is of slight importance.

*Sugar.*—Sugar may be obtained from the unfermented palm sap. This also is purely local industry which is of no importance in the world's trade and needs only passing mention.

*Desiccated Coconuts.*—Practically all the nuts produced and exported in the American tropics are consumed in the manufacture of dessicated or dried, coconut meat which is put up and used in various ways for culinary purposes.

*Minor Uses of the Fresh Nut.*—Being extensively used as food and drink by the native inhabitants in all countries where it is grown, the coconut is not so appreciated by the Caucasian resident in the tropics as it deserves to be considering its nutritive and gustatory qualities.

No one needs an introduction to the fresh milk or the jelly-like meat in the immature coconut, but the following hints may be found useful:—

Coconut cream may be prepared by grating the fresh meat, which is strained with a little water through a cheese cloth. This cream may be used in various ways in preparing puddings, cakes, etc., the same as dairy cream and it imparts a delicious flavor to the dish.

Delicious ice cream and sherbet may be made from the grated nut. The nut may also be used as a filling for pie. Properly made coconut candy is unexcelled.

*Native Uses of the Coconut.*—The major uses of the coconut tree and its fruit have been discussed at more or less length, but in addition it has found employment in various other ways. Few plants, if indeed any, are so serviceable in so many ways to primitive man as the coconut. The roots furnish a dye; the trunks are used for building material; the leaves are employed for thatching; the midrib serves in making baskets, brooms and brushes; the husk may be used as a scouring brush and together with the shell as fuel; the shell is also made into cups, ladles, spoons and other utensils. Numerous other uses of the coconut palm might be enumerated.

## The Present State of the Industry

We are indebted to the Anniversary Number of the Manila Daily Bulletin for the following notes on the growth of the coconut oil industry in the Islands.

Early in the twentieth century it was discovered that coconut oil could be refined so as to serve as a base for margarine and artificial butter, and as a chocolate fat. The demand became greater than the supply and much interest was excited at centres of production in projects to express the oil in the tropics, instead of shipping copra to Europe. As a result of their investigation of the situation, Mr. E. P. Thompson and Dr. Paul C. Freer, at that time Director of Science for the Philippine Islands, and a few associates built one of the first, if not the very first, modern mills outside of Europe and the United States. This mill, the Philippine Products Co., was organized in 1905 and built in 1906 on the Pasig River in the Pandacan district of Manila, now the scene of a greater oil industry than was then dreamed of. Unfortunately this mill was burnt to the ground by fire in 1908 so that the question of the relative advantage of manufacture in Manila and Europe was not definitely decided for the business world, and for some time the old method of shipping the copra persisted. Copra shipments could be made in bags which are a cheap container and subject to no appreciable leakage. Oil, at that time, had to be shipped in special steel drums which were returned empty half-way around the world. The European factory enjoyed better labor conditions and better facilities for manufacture. They had a market near at hand for the residual cake, whereas cake shipped from the Philippines was thought to arrive in inferior condition and was a dangerous fire risk for the steamers transporting it.

It was clear, however, to Mr. Thompson, that there were compensating features to offset the advantages possessed by the European and American mills and he persisted in this field until he interested new capital in erecting the second mill ever put up in the Philippines. This mill, the Philippine Vegetable Oil Co., was erected on the north bank of the Pasig in Manila, in 1913. It has been in continuous operation ever since, and has made large profits.

The great success of the P.V.O. and its successors was due to the natural advantages possessed by oil shipments over copra. Barreled oil takes up little over half of the bulk space required for copra based on oil content, and thus enjoys a lower freight rate. Oil can be shipped on any steamer whereas passenger vessels cannot accept copra because of the objectionable odor. There is less loss in handling the raw material and a better grade of oil can be turned out because the copra when fresh does not yield so high a content of free fatty acids; furthermore, for a given weight of copra a larger extraction of oil can be secured before than after shipment. Last, but not least of the many advantages of local mills, is the ability to ship oil in the ballast tanks of steamers or special fuel oil tank vessels. This was not contemplated in the early days of the industry but is now almost universal.

The third venture in the Philippines was the mill built at Opon near Cebu, by the Visayan Refining Co., a subsidiary of the American Philippines Co. This latter company was organized through the efforts of Dean C. Worcester, who had been for thirteen years Secretary of the Interior in the Philippine service. Mr. Thompson was active in the construction of this mill also, and it differed from the earlier mills in that it not only used the Expeller system which had proven so satisfactory, but also used improved hydraulic presses. The earlier French system had been to express oil with heavy presses, and as this was a non-continuous process, it was slow, expensive, and required much labor. In the Expeller system the triturated copra is fed steadily in against a revolving screw which expels the oil through one orifice and the cake through another. While much quicker, it does not obtain so large a proportion of the oil as the slower press process. It is now general practice in many Philippine mills to use both systems, although during the war, when prices were such as to place a premium on speed rather than economy, the Expellers were used almost exclusively.

Both of these mills were in full operation when the war started in 1914, and the resultant demand for glycerine, for edible vegetable fats, and for an oil which could be substituted for non-obtainable animal and other fats caused a great demand for coconut oil. At the same time, however, freight rates went to a point where it was hardly possible to ship copra so that the price of copra in the Philippines declined to a very low figure. With a low cost for its raw material and a full market for its products, the oil industry started on its bonanza days.

When the profits in the industry first became apparent there arose a tendency to erect new mills. The first of these was the Philippine Manufacturing Co., Tondo, Manila, which was already manufacturing soap. Carrero, Vidal & Co., Luzon Refining Co., and the Philippine Oil Products Co. were also started late in 1916 and in 1917. Some of the new mills sold their product to the older established mills, leaving them the task of marketing the oil in the States. This method represented a substantial profit but the biggest returns were secured by the independents, who marketed their own oil.

Aided by the exceptionally favorable market conditions great profits were made by all mills, and there was a rush to bring out new Expellers. The United States was at war and shipments were greatly delayed so that the new machinery ordered at that time is still coming into Manila in small batches up to this day. Perhaps the most successful importers were those who paid fancy prices for second-hand machines in the southern cotton seed oil mills and thus obtained prompt delivery. Those who could not enter the industry with their own machinery became anxious at least to own stock in the established companies. The resultant boom in stocks was the first in Manila's history, and is a promising indication of the impending change from a purely agricultural to a partly industrial basis for the Islands. It is a very good sign that the chief interest in this industrial activity was taken by the Filipinos themselves. Heretofore, the external commerce of the Islands and its large scale industrial enterprises have tended to be in the hands of other than native capital. This was in part due to the fact that until 1917, the only banks in Manila had been of foreign or largely foreign capital; but in that year was founded the Philippine National Bank which is operated with the assistance of Government funds and has greatly contributed to development of the resources of the country by its own people.

Like all good things there have been instances in which this boom in stocks has been overdone. The rapid increase in the number of Expellers, from 16 in 1915 to over 200 at the present (March 1919) has caused so great a demand for copra that the price has risen to the point where only moderate returns can be expected for awhile. This will put a premium on efficiency, however, and in the end prove a benefit to the Islands. Since the production of copra may be expected to double every five years it will not be long before an adequate supply will be obtainable. To show how the industry has grown from the single company of 1913, a list is appended of the factories organized and ready for operation as of March 31, 1919.

OIL MILLS OF THE PHILIPPINE ISLANDS.

American Refining Co.
Arandes, Francisco.
Carrero, Vidal & Co.
Central Oil Corporation.
Co-operative Coco Products Co.
Co-operative Copra Extracting Co.
Copra Products, Inc.
Cristobal Oil Co.
Eastern Oil Co.
Fabrica de Accite de Filipinas.
Francisco, Evaristo.
Franco-Philippine Oil Co.
General Oil Co.
Harrison, R. J.
Hispano-Philippine Oil Co.
Ilog Cauayan Oil Co.
Iloilo Oil Co.
Insular Philippine Coco Oil Co.
International Oil Co.
Laguna Coco Oil Co.
Luzon Refining Co.
Madrigal, Vicente.
Magallanes Oil Mills.
Manila Coconut Oil Co.
Manila Oil Refining and By-Products Co.
Misamis-Surigao Oil Co.
National Coconut Oil Co.
Oceanic Oil Co.
Oil Development Co.
Oriental Coconut Oil Co.
Oriental Copra and Oil Export Co.
Palanca-Choy Oil Co.
Panay and Negros Oil Co.
Philippine American Oil Co.
Philippine Manufacturing Co.
Philippine Oil Products Co.
Philippine Refining Co.
Philippine Takushoku Kaisha.
Philippine Vegetable Oil Co.
Poizat Vegetable Oil Mills.
Rizal Refining Co.
Samar Products Co.
Sta Ana Oil Mills, Inc.
Tan Luan Oil Mill.
Zamboanga Oil Co.
Escudero Oil Co.
Visayan Refining Co.

Of the above mills only 18 were in full operation during October, 1918, the latest month for which official figures are available. These 18 mills were equipped to produce 964 short tons of oil per day, but their actual output was only 523 tons, both figures based on a day of 24 hours. When all the mills in the above list are in full operation they will have a possible maximum production of over 1,300 tons per day or 455,000 tons per year. It will be many a year before this maximum can be realized.

The development of the oil business in Manila has been coincident with, and conducive to, progress in the industry in the United States, which has been the sole market for the Manila product throughout the war period. It was originally the custom to ship oil in strong steel containers which had to be returned from point of destination when empty. During the war it was impossible to obtain these steel containers in anything like sufficient quantity and circumstances forced the adoption of wooden barrels. These were shipped out from the Pacific Coast, knocked down, and assembled in Manila. The package was obtainable in very large quantities and at much less cost than the steel drums and the business has grown to very large proportions. It is estimated that during 1918 over 120,000 barrels were used. One barrel company has a large coopering and assembling plant located in Manila.

A still better form of shipment was soon devised in the utilization of tank steamers. The Standard Oil Company owns several large tank steamers which carry fuel oil and petroleum from the Pacific Coast to the Orient but these usually returned in ballast. It was not believed feasible to ship vegetable oil in these tanks because of fear of contamination from the residue of the fuel oil. The Visayan Refining Company, however, believed they could overcome these difficulties and by cleaning the tanks with live steam, swabbing them up with the copra meal itself, they accomplished the task, working a complete innovation in the trade. It was then necessary to provide proper facilities in the States for discharging the oil into storage tanks, and forwarding it in tank cars. There was a shortage, and still is, of both the tanks and the cars, but leading oil mills have begun construction of their own tanks in San Francisco and Seattle, and this difficulty will soon be a thing of the past. In the meantime the largest users of oil in the States are also falling into line and equipping themselves so that they can handle and store the bulk oil.

An interesting feature about bulk shipments of oil is that, while coconut oil in the Philippines or any tropical climate is a liquid, it becomes in a cold climate a solid fat slightly resembling paraffine. In order to discharge from a vessel's tanks oil which has solidified, steam pipes are run into the hold of the vessel and steam can be turned on when desired, thus melting the oil so that it can be pumped out.

The following table shows by years until 1918, and by separate months for that year, how rapidly the industry expanded in Manila:—

*Exports of Coconut Oil from the Philippines.*
[Courtesy of Manila Merchants' Association.]

| | Kilos | Value |
|---|---|---|
| 1907 | 50,662 | Ps.101,324.00 |
| 1908 | 3,915,114 | 684,560.00 |
| 1909 | 1,184,170 | — |
| 1910 | — | 32.00 |
| 1911 | — | — |
| 1912 | — | 80.00 |
| 1913 | 5,010,000 | 2,292,678.00 |
| 1914 | 11,943,000 | 5,238,356.00 |
| 1915 | 13,464,000 | 5,641,003.00 |
| 1916 | 16,091,169 | 7,851,469.00 |
| 1917 | 45,198,000 | 22,818,294.00 |
| 1918 | 115,281,938 | 63,328,317.00 |

The future of the coconut industry in the Philippines will be one of the bright spots of the country's history. The average rainfall throughout the coconut growing districts in a year is not far from 90 inches, or more than some districts of Arizona get in 30 years, so that the production of nuts is more favored than anywhere else in the world. It is unfortunate that the rainfall which makes such fine nuts at the same time makes it difficult to sun-dry the coconut meat. As a result the Philippine copra is usually praised for its quantity and blamed for its quality. It is only a question of time, however, when mechanical dryers will be available and then the Philippine copra production will leave nothing to be desired. We are to-day only at the threshold of the development of the coconut industry. In this opening act, just ending as the curtain has been rung down on the World War, actors have held the stage whose successes rival the stories of the Arabian Nights. With the tremendous possibilities of the P. I. still scarcely touched who shall say that as marvelous a chapter shall not be written during the next decade?

## The Revised Chinese Customs Tariff

*THE Revised Chinese Customs Tariff, which was originally published in the "Far Eastern Review" for January, 1919, and repeated in the February ("Ports of the Orient") number, was promulgated on July 1, and will be enforced on August 1, 1919.*

*The Editor.*

# The Chinese Boycott at Shanghai

## *How the Students and Merchants removed the "Traitors"*

A movement of student bodies in China, which began with a mob of young men who marched upon and attempted destruction of the home of Tsao Ju-lin in Peking early in May, as a demonstration of their displeasure at the conduct of national affairs—particularly the indiscriminate placing of loans with Japanese financiers and the granting of concessions to Japanese nationals—developed into a nation wide strike and boycott which very nearly paralyzed business in many of the important trading centres of China.

SHUTTERED AND PLACARDED SHOPS, IN A COUNTRY WHERE TRADE AND INDUSTRY USUALLY CONTINUE SEVEN DAYS A WEEK, MADE AN ODD SIGHT ON NANKING ROAD

As students in Peking, Shanghai, Nanking, Hankow, Hangchow, Tsinanfu, Tientsin and other leading cities organized themselves, they applied pressure first to the shopkeepers to boycott goods of Japanese manufacture, and second to the various shopkeepers' guilds to close their places of business and suspend all trade, as a demonstration for the benefit of the pro-Japanese clique in Peking. When the authorities maintained a defiant attitude—in refusing to lift the ban on the press for the publication of anti-Japanese reports and to release the students who had been jailed in Peking for rioting—measures were taken by the students for the widening of the boycott and strikes, and the strike fever spread with rapidity among all classes of workmen. The officials continued to ignore the sentiments of the students and still sought to harbor the pro-Japanese officers against whom the movement was directed, but unable to resist the storm of resentment which was sweeping over the enlightened Chinese and displaying itself in measures which eventually would have led to revolution, they capitulated with the resignation of Tsao Ju-lin, Lu Chang-yu and Chang Tsung-hsing.

During May and until the 5th of June, the strike was in the "passive" state—activities were confined principally to parades and the refusal of the majority of merchants to deal in Japanese wares. It was on the 5th that a report left Peking to the effect that some 400 students had been jailed and were being subjected to ill-treatment for participation in the demonstration. This marked the beginning of the real storm of protest.

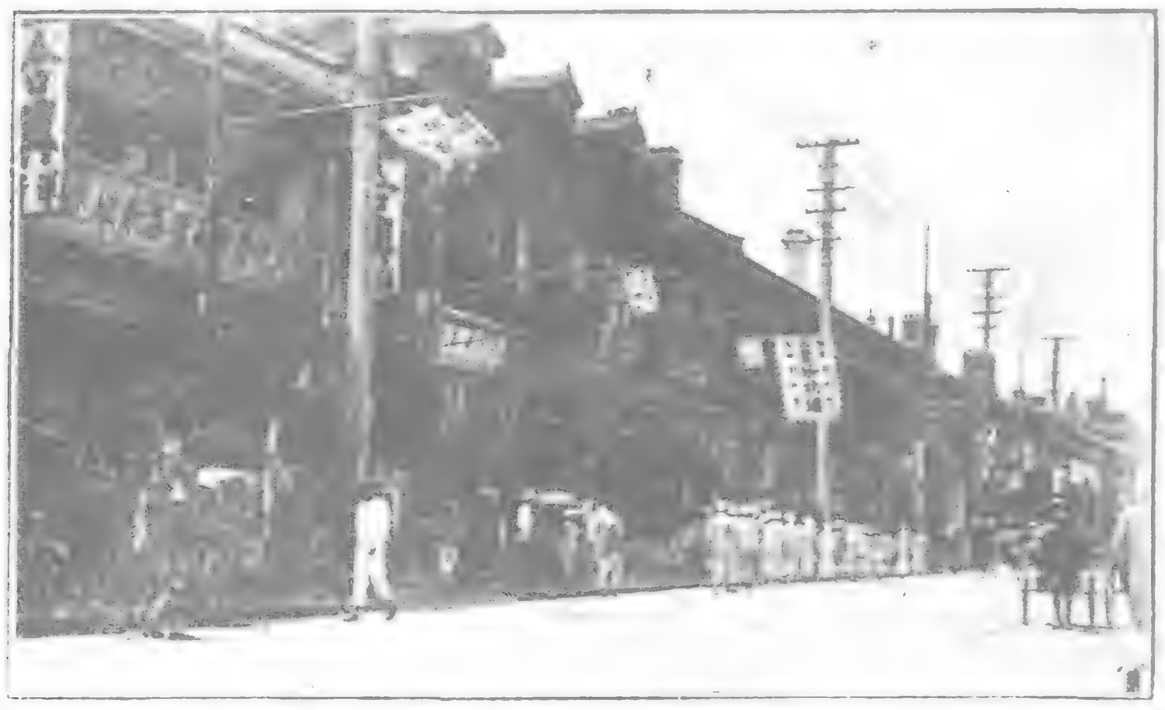
The course of the movement in Shanghai was much as it was elsewhere—and as Shanghai was probably the very centre of all the activities it is interesting to study the development of the boycott at that port. When the report of the incarcerated students reached Shanghai, and was spread about with the multiplying exaggerations which usually attend the verbal dissemination of news in China, the students marched about the city streets intimidating or otherwise prevailing upon shopkeepers to close their doors and suspend business, and the exaggerated rumors which were going the rounds brought to the students the sympathy of a great part of the mercantile community. This was the real beginning of the boycott which was soon to tie up manufacturing, shipping, and the greater part of the retail trade in Shanghai. Two days later—on the 7th—the merchants' guilds officially joined the students. At about the same time the students were able to prevail upon the market gardeners and butchers to refuse to bring their goods to the markets, and on the 7th Shanghai found itself without fresh food, except in small quantities, and with long lines of shops either closed tightly or carrying on business in absolute necessities only by secretive means. The streets became congested with hoards of idle Chinese, who roamed about looking for mischief or excitement, and who sometimes found a little of each, as in clashes with police patrols and the harassing of Japanese pedestrians. As wild rumors began to spread and ugly stories of Japanese having been found in attempts to poison foodstuffs became current, the temper of the mobs reached its height. Stern measures were taken by the police to check the mob spirit. Patrols tore down inflammatory banners and signs, only to have them replaced as quickly; and as the people resented the attitude of the municipal authorities, their activities for a while only served to infuriate the disorganized bodies, although the students' organizations seemed as eager as the police to maintain order.

On the 7th news reached Shanghai that the 400 students had been released. A feeling of relief swept over the Settlement; for foreign residents believed that the end of the strike was near. However, the students and merchants were not content with the release of the students; they now demanded nothing less than the resignation of the cabinet at Peking, and the action of the Municipal Council had not served to abate their anger. The situation became tense by the 8th. It was felt that if the shops did not open soon the strike would spread to the industrial plants, and as a matter of fact on the 9th and 10th the strike fever had reached the Chinese employees of foreign firms, who began to debate the advisability of joining the merchants in idleness. At this time the staffs of a number of foreign and native printers actually stopped work. The telephone operators deserted their posts; native drivers of motor-cars quit work, and for a day there was no motor-car service and owners were forced to use the trams or rickshas or drive for themselves.

The paralysis of the shipping facilities began with the refusal of wharf coolies to unload Japanese ships or cargo from Japan. The employees of Japanese cotton mills quit their posts. The situation on the railways became critical. The crisis had been reached.

THE SHANGHAI VOLUNTEERS AND SPECIAL CONSTABLES WERE ON DUTY IN AN EFFORT TO SUPPRESS THE BOYCOTT. HERE THE REMOVAL OF INFLAMMATORY NOTICES IS ATTRACTING THE ATTENTION OF IDLERS

On the 10th it was believed that if the shopkeepers—whose conduct had made the greatest impression on the public as most affecting their daily welfare—would only open their doors that the danger of a widespread strike would be averted. Great efforts were made for the opening of shops, but they remained closed. However, another factor arose which succeeded in keeping the situation quiet for the day—rumors from Peking of the resignation of Tsao Ju-lin and the other officials who had been branded as traitors and against whom the movement had been directed.



STUDENT PROCESSIONS BECAME THE ORDER OF THE DAY, PASSING LONG ROWS OF CLOSED SHOPS AND SILENT FACTORIES, THE WALLS AND FLAGSTAFFS DECORATED WITH SIGNS OF PATRIOTIC NATURE

The news of the resignations became confirmed on the 11th—just in time to arrest a movement which would shortly have become anarchy. Here was the situation on the 11th: the railways leading from Shanghai and the coastwise shipping were completely paralyzed—on that day, as soon as trains reached their destination, enginemen, firemen and station masters struck; clerks, ticket sellers and inspectors had left their posts; British and Chinese steamers were held up by striking wharf coolies; and the greater part of the mills were closed and silent.

Practically all the sailors and firemen of the local steamship lines had walked out. The China Navigation Company had six ships in port with no hope of moving them, and all the other steamship lines were similarly affected. Five hundred employees of the telephone company were on strike and the work of the exchange was being partially carried out by a handful of foreign women employees. Many foreign firms were affected; fitters of the Municipal electric power station, employees of the China Import and Export Lumber Co., fitters of the Shanghai Cotton Mill and numerous other cotton mills had joined the movement; 2,000 employees of the docks were idle; native washermen refused to take work.

It was then that the British gunboat *Bee* tied up at the Customs Jetty with everything ready for quick action if necessary. The volunteers were mobilized and patrolled the street; special policemen were on duty. The immediate necessity for supplies of fresh meat being felt very strongly, the slaughter of animals was decided upon and was carried out at the municipal abattoir under guard of the volunteers. To add to the inconvenience of foreign residents, the water reservoirs were drained by frenzied Chinese who filled their domestic utensils daily because of a rumor that the authorities were about to shut off the supply of water on Chinese streets. The night of the 11th was one of anxiety, with frequent gleams of hope. Late in the evening the situation was cleared by a decision of the guilds to resume operations on the next day.

On the 12th the shops began to open. All the public utilities were restored, and only sailors and firemen of the shipping lines, employees of a Chinese cigarette factory, and workmen of a few other industries remained away from their work. The news of the resignation of the three officials was confirmed through official foreign channels in the morning. The shopkeepers and strikers, who had become tired of their enforced idleness, gave vent to their feelings by parades and noise; everyone felt relief at a satisfactory ending of a very disagreeable situation, and business was resumed with a rush.

By the 14th the situation was normal. The only existing echo of the strike is the persistent circulation of rumors of attempted poisoning of food and water by Japanese and Japanese agents, and a few harmless natives who were suspected of the crime of poisoning foodstuffs were beaten to death or seriously injured at the hands of mobs. These tales bring to mind the stories that brought about the Boxer uprising in 1900, when missionaries were suspected of murdering Chinese children for the sake of their eyes, believed by the Chinese to be indispensable in the photographic art. However, the signs do not point to a recurrence of outrages like the Boxer murders; apparently the strife is at an end, and everything is rapidly approaching its normal state.

# Advice to Chinese Cotton Mill Owners

## Retiring Expert Addresses Native Industrialists on Future Expansion

Among the pioneer teachers of modern industrial methods in China, Mr. James Kerfoot, the head of the cotton mills department of Messrs. Jardine, Matheson & Co., of Shanghai, is a practical cotton manufacturing specialist; and after nearly twenty-three years of unremitting toil Mr. Kerfoot recently summed up his experiences in a long address filled with good advice which was delivered to the association of Chinese cotton millowners. Mr. Kerfoot said that it had taken him twenty-two and one-half years to finish the work of starting the manufacture of cotton in all its branches, a task which, when he left England in 1896, it was hoped he could accomplish in three years; and the people who had invested their money in cottons had to wait a long time for a return on their capital. At last the effort and capital has been repaid handsomely, and Mr. Kerfoot felt it a pleasure to retire while the trade was so prosperous.

They had asked him to give his ideas on the future of the cotton industry in China. Candidly, it depended upon the millowners themselves whether it is going to be successful or not. If a short-sight policy is adopted, as we have seen demonstrated so often in the past, the millowners would have a hard time to meet future competition. With a population of 400 millions, all wearing cotton garments, there should be no anxiety as to the future demand for mill products; success would come if the cottons could be supplied as cheaply as by the competitors, and if the means are forthcoming to purchase them. If every person in China could buy another suit of cotton clothes per annum, a hundred thousand additional looms and two million additional spindles would be required. The demand depended upon the purchasing power of the people, so that every industry started in China is in the right direction as it finds work for the people and creates a spending population. The demand would come from the cities and towns, for the Chinese farmer and his family have little use for goods which, although looked upon as necessities in the prosperous settlements, are to the agriculturists as luxuries. The farmer is busily engaged with his crops, and finds little time for good clothes—the cloth made on the hand looms in the spare moments of the women folk is sufficient to supply the men with all they require. Therefore, the first essential is to start industries of all kinds throughout China; around these industries will spring up towns and fresh demands will be created.

The three principal necessities to make the cotton industry of this country capable of meeting competition are cotton, coal and operatives; more land must be put under cotton if the additional spindles in China and Japan, now under construction, are to be successful. The need is for a greater yield and a longer staple. He had worked anxiously towards this end, but the native millowners preferred to work alone instead of co-operating with the foreign millowners. The two foreign associations had decided to engage the services of a cotton expert from America who would work under the direction of Dr. Reisner at the Nanking University, and the expert's services will always be available to the native millowners.

The high charges which have been paid for coal of recent years are not due to higher charges at the mine, but to excessive freight costs. Surely there was sufficient capital represented among the auditors to purchase and work a coal mine in China which would supply their requirements. As for labor, unless the operatives were intelligent, well housed and fed the proper results would not be forthcoming. The night and day working of the mills, which has been forced upon us by our competitors, prevents any real social or educational work being done amongst the operatives. We have a night school for the young men and with the assistance of these present we are opening a small hospital and dispensary with a resident doctor and nurse, but far more is required. A club house should be built with part of the profits this year, and the association should erect a technical school for the training of the foremen and members of staffs. A capable young man should be selected from each mill who should be sent abroad to work in home machine shops and mills and attend the technical schools in Lancashire. That was the only way to meet the competition of the future.

There was one thing which prevented Chinese undertakings being as successful as those managed by foreigners—in fact, it is common in every phase of Chinese life—and that is nepotism. Even the right man in a responsible position never got a chance to make good because he was held back by such dead weight. The organization could do much in re-moulding China and bringing about a different state of affairs, for they were all business men and it was only by their class that China could be lifted out of the moribund state which she occupies at the present time. Where were their leaders and strong men? Two cotton millowers of Lancashire were the great exponents of free trade in England in 1840, and converted the whole country, including a protectionist premier and cabinet, in the course of a seven years' propaganda. If it took twice as long to return the right men to govern China in a honest and businesslike manner, was it not worth a trial?

Outlining a scheme for a great cause, Mr. Kerfoot said that his auditors must originate an extensive association which will sacrifice time, talents and fortune in instructing the people and creating a popular interest in the government. A weekly publication would be needed, to be spread broadcast through the provinces. There must be among them men of strong will and of ardent temperament who feel strongly the injustice of the present system of government, which is leading to disaster on every hand, and they must be impressed with the sacredness of the cause they are prepared to press to a successful issue. The Council of such a League should hold public meetings and invite deputations from all the large towns so that they will set to work with a zeal. It would require more than ordinary courage to face such an enterprise. The adversaries to be combatted will be in possession of riches, influence, the legislature, the state, the public treasury, the soil, government places, and monopoly, and they are walled round by traditional deference and veneration, but the aspect of these difficulties should not frighten the founders of the League. As an illustration of what can be done by individual effort, we might take the last three-and-a-half centuries of his country's history, which abounds with examples of men stirred by love of adventure and of independence in thought and deed, but who were responsible for national development and paved the way for English colonial expansion which resulted in an island growing into the British Empire. The first brick in the Imperial edifice was laid by a landing at St. John's, Newfoundland, in 1583. Since then there had been many other pioneer companies, such as the East India Company in 1600 which brought about the development of India, the Pilgrim Fathers, who arrived in America in 1620, and who were financed by London merchants; the Hudson's Bay Company, the Canadian Pacific Co., the British Cotton Growers' Association, whose work is in Africa, and many others. These were instances to show what could be done without Government and if forces were only organized properly, but there had to be an objective, and it could not be said that either the Chinese Government or people had any plan of action which would lead to better government or to the uplifting of China's vast population. If he had spoken plainly, it was because he would like to see China progress and hoped they would receive what he had said in the spirit in which it was given.

A few notes on the subject of which Mr. Kerfoot so eloquently spoke will not be amiss. Cotton manufacturing in China is a comparatively new industry. In 1895 there were but six native mills, with a total of 183,000 spindles, in all China. That year the Treaty of Shimonoseki was signed, which gave to foreigners the right of building factories in the treaty ports, and by the end of 1896 five foreign mills with 158,000 spindles and several new Chinese mills had increased the total to 417,000 spindles and 2,100 looms. In the current year there are some 40 important cotton mills using foreign machinery with a total of 1,528,041 spindles and 6,993 looms. In addition about 80,000 spindles are under construction, and orders for about the same number are under way. At first the Chinese mills confined themselves to the manufacture of yarn, and the installation of looms was not undertaken to any great extent until 1907 and 1908, during the years following the Russo-Japanese war when piecegoods were greatly in demand, when several mills added looms to their equipment and undertook the manufacture of coarse sheeting and drills.

The total consumption of cotton in all the mills when runuing on full time is estimated at 2,000,000 piculs (266,666,666 pounds) per year, or approximately 533,333 bales of 500 pounds each. The total yarn production, including that used by the mills for weaving, is 200,000,000 to 250,000,000 pounds annually, and the total cloth woven ranges from 40,000,000 to 50,000,000 yards. The principal yarns spun are 10s., 12s., 14s., 16s. and 20s. Some 32s. are spun from American or Indian cotton, but only in limited quantities. The principal cloths woven are sheetings and drills, although lately some of the mills have been experimenting with canton flannels, jeans, grey shirtings, blankets, towels and canvas. (For a review of the trade in cotton manufactures, see FAR EASTERN REVIEW, April, 1919).

# Labor Unrest in Japan

Japan is not escaping the fever that has for some time been sending up the temperature of labor organizations in different parts of the world, though the Japanese authorities employ every possible means to suppress agitation and the public or private expression of "dangerous thoughts." Giving some recognition to the inevitable result of the International Labor Conference the Government has decided to take a more decided interest in labor questions and with this end in view has ordered the high officials of various departments to meet from time to time and discuss the subject.

This step has not averted activity on the part of some of the workers, however, for efforts have already been made to secure an eight-hour day instead of the minimum of ten hours, and an increase in wages of some twenty per cent. The effort failed, but it is not likely to stop there. News of the world-wide agitation among working people to secure better conditions for themselves circulates in Japan—if only in a limited manner—but it is bound to have effect in the long run.

Commenting on the situation as it is at present the "Japan Chronicle" had the following observations to make in a recent issue, and they will be read with interest by all who know the conditions that obtain in the Japanese Empire :—

"Although official position and political power are all in a world far removed from the working proletariat in Japan, and though a Labor Party has been forbidden to exist—and hardly seemed to desire existence—there has been a sudden change within the past few months. In reality the change is not sudden. The suddenness lies in its becoming manifest. It had been a tradition that the working man was still in the feudal era, regarding his employer as his lord—though the employer was often sadly wanting in the sense of responsibility that the daimyo felt for his people. Advanced ideas there might be, but the educated men responsible for the administration must naturally have the largest store of wisdom, and the people were bidden to wait, and what was good for them would be provided for them. As Japanese, they knew that they were not as other men, and some doctrines held blameless in other countries were criminal in Japan. Mr. Suzuki's attempts to get the workers to cultivate co-operative thrift were regarded with approval, though he was closely watched to see that he did not preach thought as well as thrift. Mr. Tagawa's work among the despised and rejected in Shinkawa was so incomprehensible as to need a vigilant surveillance. Mr. Suzuki at last went to Paris where he could do no harm, and when the Peace Conference included Labor resolutions in the treaty it evolved, the Japanese delegates said that, of course, things were very different in Japan, to which the others very naturally agreed. Yet while all was calm and the Yu-ai-kai in a state of suspension through its founder's absence, there was a sudden irruption of labor meetings all over Japan.

In Kobe a workman in a greasy smock gave an address which showed that his understanding of the situation was at least as clear as that of his far better educated superiors. In Tokyo a very stormy meeting was suddenly quieted by the simple eloquence of a girl graduate who took the platform and who spoke for that great army of Japan's superfluous daughters who are overworked, underpaid, and Box-and-Coxed in abominable dormitories in the "modern" factories. From a silk district came strange stories of "songs against capitalists" sung by the filature girls, when like Pippa in the Italian filature, they ought to be singing,

God's in his heaven
All's right with the world.

This was stopped by the police and some people who circulated the songs on postcards were suitably dealt with. Then again postcards against capitalism have caused peturbation in barracks where they were circulated among soldiers soon to be working again for a living. Naturally the authorities look for the origin of the ferment everywhere but in the right place. Socialism used to be the Evil Thing. Nowadays it is almost a virtue compared with Bolshevism. Officers and men who have been in Siberia are regarded with as much uneasiness as men who have been visiting a fever hospital.

"Meanwhile the Yu-ai-kai, like Socialism, has lost its savour, and we have now the Rodo Domeikai (Labor Union)—a far more portentous thing. We have said that the Japanese worker is beginning to think for himself. That is true, but he also finds ideas and definitions ready made for him to express his own thoughts, and when the authorities hear of "direct action" being advocated on public platforms they must regret that they did not make Karl Marx a school-book by way of a safety-valve. The police unfortunately have a greater dread of "direct thought" than of "direct action." A strike riot causes little perturbation, but such a movement as the Rodo Domekai the greatest anxiety. It is said that the Kwansai branch (covering Kobe and Osaka), consisting of 5,000 members, have selected from among themselves 200 who are to make a special study of labor problems. They have even retained Dr. Imai, an Osaka barrister and member of the House of Representatives, to instruct them. Dr. Imai told a "Mainichi" representative that his pupils are all men of high technical skill and lively intelligence, and are already deeply immersed in Labor literature, while he puts the wages of a few of them, in these high-priced days, as high as Y.600 per month. Nevertheless, they regard themselves as members of the proletariat and are keen on ameliorating the lot of the worker.

"The same paper informs us that the Tokyo police are in a state of great nervous agitation, and regard the Rodo Domeikai as some sort of Socialist movement. Mr. Oka, the Chief of the Metropolitan Police, does not pretend to any great sympathy. He says that he recognized that Japan must participate in some degree in the general trend of the world's thought, but now that the workers, abusing his indulgence, have become unbridled in their utterance of extremist views, preach a strike war against capital, and "direct action," the Regulations must be put into force and the Domeikai meetings prohibited—though he allows that meetings for sincere and earnest study are commendable. Apparently he thinks that if there are no speech meetings there will be no growth of extreme views. That, when held by an official so highly placed, is a far more dangerous thought than any likely to be preached on Rodo Domeikai platforms."

Newspapers from Japan continue to report workmen's strikes and demonstrations for higher wages; while straw which shows how the wind is blowing was a debate held at the Y.M.C.A. hall at Kobe on June 8, when the gathering unanimously voted for an eight hour day. One speaker citing a personal experience said that in 1917, when the workpeople of the Kawasaki Dockyard numbering 14,000 used to work more than 13 hours a day, and sometimes throughout the night, they only constructed two 5,800-ton steamers a month, while to-day, when the hours were reduced to 12 hours a day, they were easily building 3 steamers of the same tonnage a month, which clearly went on to demonstrate the efficiency of short-time work. Decisions by Y.M.C.A. debating societies are more significant in a country like Japan, where freedom of speech is as yet not untrammelled, than in America or European countries where the stump orator in the public parks is welcome to all the fresh air and to any crowd he can gather to listen to what he has to say.

# Shipping Accommodation at Tientsin

In the course of a letter to the Chairman of the Tientsin Municipal Council on the subject of an up-river swinging berth for steamers using the port, Mr. F. W. Maze, the Commissioner of Customs at Tientsin, who has done considerable to further the commercial interests of Tientsin, urged that the upper berth be reconstructed to accommodate steamers 350-ft. long between perpendiculars, and with a minimum depth of 14-ft. of water, on the ground that improvements to the river were contemplated to enable vessels 350-ft. in length to come up the river to the Bund. Mr. Maze pointed out that "the Hai Ho Conservancy Board is about to further improve the approaches to the port by the acquisition of a powerful Hopper dredger which should enable a depth of from 15 to 20-ft. to be maintained to the Bar Channel, while arrangements are being made to eliminate the sharp bends in the River at the lower end of the Second Cutting and what is known as the Upper Tombs Bend. Moreover the completion of the Cathedral Cutting; the reversion of the Pei Yun Ho; and the establishment of a strong Commission composed of Chinese and foreign engineers of repute to exercise control over the conservation of the waterways of the Province and draw up a scheme for the prevention of floods, are events calculated to have a direct and most beneficial bearing upon the River, and by greatly improving its navigability render it possible for steamers of *350-ft. in length* to come up to the Bund expeditiously and safely. But in the absence of adequate facilities for swinging in the Tientsin Anchorage vessels exceeding 300-ft. long are now practically debarred from trading here; that is to say, notwithstanding the large sums already spent by the Hai Ho Conservancy Board, etc., in effecting admitted improvements in connection with Bar and River, in the conditions at present existing here, it is impossible for shipping to derive full benefit therefrom. The accommodation in this respect should be improved, therefore, with a view to making reasonable provision for the future development and expansion of trade."

VLADIVOSTOK AND THE GREAT HARBOR—THE LATEST VIEW OF THE PORT

# Chinese Funereal Rites

## The Pomp and Circumstance of Death in Peking

By GERALD KING

It is cheap to live in China, but dear to die. The Chinese who has spent his life in denying himself most pleasures and many necessities, goes to his grave in a whirl of extravagance. He whose forethought and care have made and kept his family

PART OF A FUNERAL PROCESSION

prosperous during his lifetime, by his death plunges them into debt for years. It is necessary and inevitable: convention demands it. The burial of a father or mother is a call to the family to assert their social position and embitter their friends by the lavishness of their display. Many causes combine to keep these evils alive. Someone has to be the first to stop: and few people are strong enough to risk being accused of being mean or of failing in respect to the dead. The solid vested interests which live by these wasteful practices unite to keep them in force. It is urged on every Chinese that the only way that he can requite all the love and care a parent has bestowed on him is to spend as much as he can on the funeral, when the parent's prestige will be enhanced to the profit of the undertaker. In many parts of Europe and America a similar feeling still exists, especially among the lower classes. Many years will elapse, in all probability, before the straggling processions cease to drone through the streets, and the undertakers need not yet look to their bank balances.

When a coolie dies, only a few hours or a day elapse before he has returned to his mother earth. He is dressed in clean clothes, placed in a cheap coffin, and borne the next day to the burial ground. In a few weeks he will have mingled completely with the soil that bore him. Not so the rich. There are many ceremonies to be performed, and fees paid, before he is left in the solitude of the family graveyard among the stone tortoises and pine trees.

So soon as he is dead, a writer of death certificates is called in. This man decides at what hour the body shall be placed in the coffin, and predicts the day on which the ghost, which left the body at the moment of death, will return to the body, in order that on that day the death chamber may be avoided. For, were any living man in the room when the ghost returned, his death would soon come to pass. He also selects the position in which the body is to lie until it is placed in the coffin, great attention being paid to the direction in which the head points.

Then he writes a certificate stating the hour and cause of death, and that the death has been a natural one. This is handed to the police at the city gate as the funeral goes to the burial ground. Formerly that was all that was necessary, but now the police furnish a certificate which must be produced at the same time.

The time of placing the body in the coffin varies according to the hour and day of the death, which is composed with those of the birth, and a favorable conjunction selected.

The next festival is that of the third day. The friends and relatives come to the house and pray, and all burn sticks of incense. A procession is formed, headed by servants carrying a quantity of paper men, paper animals, and paper articles of furniture, paper carts, paper servant girls, etc., which are ultimately sent up in flames for the use of the spirit in the next world—a ghostly trousseau in fact. Then come the friends and relatives. The priests go with them praying and reciting, and in the midst is the chief mourner bearing the tablet of the dead. When they come to an empty space the paper objects are burnt amidst the prayers and entreaties of the assembly, and then all return slowly home.

These paper men and animals have a long descent. Originally, live servants, horses, and dogs, with real furniture and jewels, were entombed with the dead chieftain. The cruelty of the practice, and the fact that the presence of objects of value led to the graves being rifled, gradually brought about the substitution of earthernware figures instead. These are now common objects in museums. But these in turn were gradually displaced by the cheaper paper figures, which are burnt outside, since they have no place in the tomb, which has gradually shrunk from a large chamber or series of chambers to a hole which contains only the coffin.

The time which must elapse before the burial is now fixed upon. It is usually a number of weeks varying from one to five. The longer the period, the greater the elegance: the greater the elegance, the heavier the expense. During this wait the mourners may not shave or dress their hair, and though the injunction which extends this period of non-shaving to three years is seldom held to, for these five weeks it is never departed from. All this time the body occupies the best room in the house, and in each seventh day there is a religious service to be gone through, accom-

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panied by the mournful chanting of ritual, the clashing of symbols and the blare of trumpets. Again paper men and animals must be burnt, and in rotation different priesthoods conduct the service. The Chinese likes to take as few chances as are proportionate with a reasonable expense, and so he hires in turn the

PRIESTS IN A FUNERAL PROCESSION

buddhist, taoist, and lama priests. Sometimes he will have two sets of buddhists, monks and nuns. Having done this he feels that he has done all that can be reasonably expected of him. On the actual day of the funeral all religious parade together in different parts of the procession, each bearing the only key to salvation with them.

The body, dressed in the clothes favored by the deceased in his lifetime, lies in state in the main hall of the building. The coffin, which, like the clothes, has been the subject of the living man's earnest care, is closed down and the coats of lacquer applied. The family perform the obligatory religious and social services. Notices of the death, and invitations to the funeral are issued.

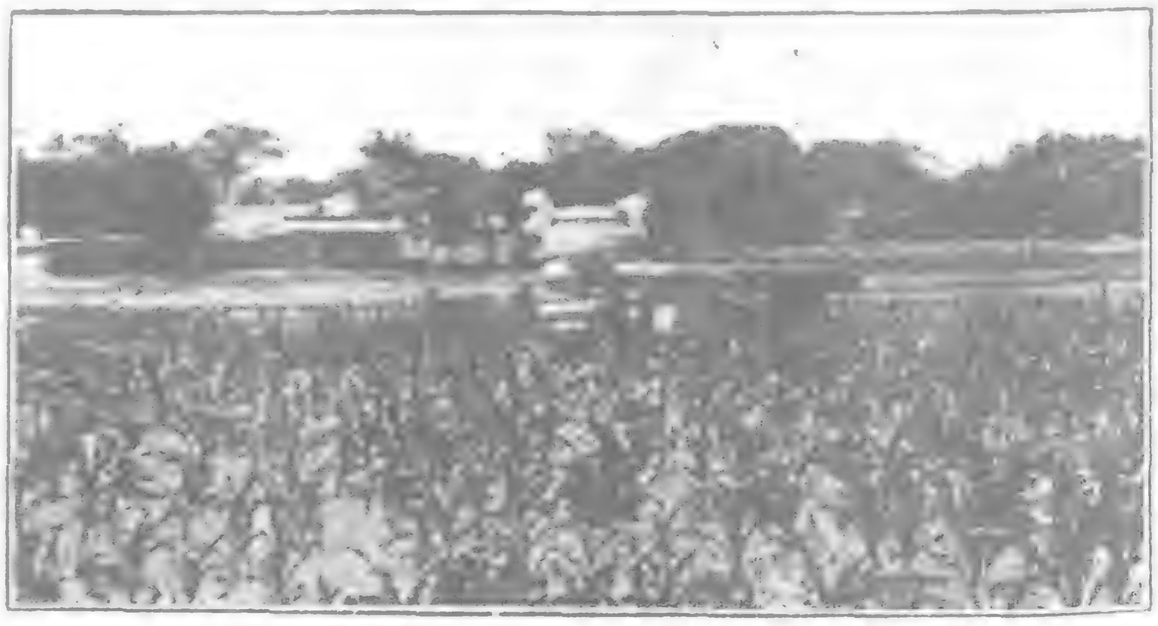
The style of a Chinese funeral depends entirely on how much the family are willing to pay for it. In the time of the Manchus funerals were regulated by sumptuary laws which were rigidly enforced, but now, if the money is forthcoming, the parvenu can be buried in as much state as the prince.

The funeral we are about to describe is that of a wealthy man, and is sufficiently costly to run into five figures of silver dollars.

The procession is marshalled at the residence, and, after the delays inseparable from anything under Chinese management, is headed by four men carrying state umbrellas called incense umbrellas. With them go men carrying bags of paper money which they scatter high in the air. This is called the Right of Way money, and is to purchase a right of way for the ghost from those spirits who might be expected to impede him were they not bribed. Several other men scatter similar money at other points in the procession to pacify malignant spirits and to divert their attention from the deceased. If the dead man was a buddhist or a taoist he is in addition provided with a number of passports issued by the priests and paid for by his relations, which inform various gods and devils of the merits of the departed and entreat or command their good will to him. These are almost infinite in their number and vary with each village and each priest. Then come sixteen men carrying notice boards, which have the rank of the deceased on them, or more commonly the rank the deceased would have liked to have had, for inaccuracy haunts a Chinese to the grave, and his funeral procession crawls along asserting his claim to a rank in life which was seldom or never possessed. Next are twelve red silk umbrellas, which are for purposes of decoration. After them, sixteen men carrying emblems of official rank and retinue—four hands on wooden poles, four clenched fists, four archaic swords, four guns. Once more there are umbrellas and flags. These occur at frequent intervals throughout the procession, and there are usually five or six groups in all. Then come in groups of two, one on each side of the road, 28 men with flags and notice boards. One of these notices asks for way for the procession; a little late in the day. These are followed by flags, with flying foxes, flying dragons, flying phoenixes, bears, panthers, turtles and fish painted on them, one animal to each pair. Then two white rods, then two pieces of bamboo split in half, the lower part painted black and the upper part red, and then two large sticks. After these, more umbrellas and notice boards, and next in order twenty-four small flags. Then come paper furniture, paper attendants, paper rolls of cloth on paper tables, paper books in paper cases, paper lions, and so forth. These are not to be confused with those burnt before the funeral. They are usually presented by friends and correspond to our wreaths. Once more there are umbrellas and flags, and then four archaic guns and four archaic swords on the ends of sticks. Six more umbrellas and six more flags. Two small pavilions, each carried by four men. A sedan chair, called the spirit chair, carried by eight men. Then eight men carrying a wooden pavilion covered with gaudy decorations in which there is a likeness of the deceased. Then come the band, consisting of four flute players, four drum players, two large trumpets and two small trumpets. The large trumpets produce a deep bellowing noise, not without interest. The rest of the band wail and drone fitfully. Three more umbrellas. A spirit Peking cart. A fully saddled and bridled spirit horse. The spirit chair, the spirit cart, and the spirit horse are all for the spirit to use in travel as his fancy may dictate. A group of small children with highly decorated peaked caps, who carry drums and fifes. The mourners, dressed in white, with little white caps. The chief mourner is usually prostrated with grief whenever he notices anybody looking at him, and at the crowded parts of the route he has to be helped along. The rest of the mourners are talking and smoking, with great gusto. Then comes the coffin borne by 48 bearers with reliefs following them. The coffin may be borne by 8, 16, 24, 32, 48, 64 or 80 men. Formerly the number was strictly regulated by sumptuary laws, but now the only restrictions are those of sense and taste. An Empress Consort's coffin was formerly borne by 96 bearers, and that of the Emperor by 128. The late Empress Dowager, usually known as Hsi T'ai-hou, was carried to the Tung-ling by 128 in 30 reliefs. So many reliefs were unnecessary and extravagant, but it served to add to the prestige of the dead empress and was a last flicker of expiring grandeur.

The coffin is supported on a wooden trestle which is enamelled bright red, and the bier is covered by a brilliant red cloth. The coolies who bear the coffin, like the rest of those employed in the procession, are in the filthiest state into which a coolie can get: unwashed, unshaved, with the dust of centuries adhering to their matted blue black hair, and dirty mourning garments of green thrown over their tatters, and a disreputable mourning hat cocked on their heads. They are of all ages from a boy of ten staggering under his load to a loafer of fifty smoking Pirate cigarettes. The Chinese organization, which can elaborate the intricate folly we have detailed, breaks down at the difficulty of getting clean coolies.

Friends sometimes erect matsheds at the side of the road with tea tables in them at which the procession halts. When the procession reaches one, the chief mourner prostrates himself as a sign of gratitude, and the bearers, taking their time from a man with a baton, give a kind of hoarse cheer. Then the mourners



ONLY THE URN AND THE MARBLE TABLE REMAIN. THE GRAVE HAS LONG SINCE DISAPPEARED BENEATH THE PLOUGH

and guests take tea and rest. Each of these halts means an extra twenty cents for each coolie employed in the procession: they demand it on account of the extra labor caused by the delay, and are strong in the knowledge that if the family are sufficiently wealthy to have these signs of respect paid them, they can be mulcted a little more with safety.

The coffin itself is not visible, but has been seen and commented on during the lying in state. Rumour is always busy with its cost. The great desire of the Chinese is that the coffin should not decay, and they are ready to pay huge sums for woods which they have decided, on purely imaginative grounds, will not decay. Thus *yinchenmu*, which is extremely scarce, and which I am assured by a Chinese friend to be nothing less than petrified artemisia, will fetch as much as $20,000 for sufficient to make the inner shell of a coffin, which has to be enclosed in an outer shell of some less precious material. Respectable coffins can be bought for $100, and some sort of a coffin for $5.

The end of the procession is formed by twenty-five men who are called the rear escort. With them go a number of carts and chairs with the female mourners inside or sitting on the shafts. These are not usually hampered by a sense of the solemnity of the proceedings, and appear thoroughly to enjoy their outing and the gaze of the crowd. If the family burying ground is near the gate of the city the whole procession goes there. But if, as is usually the case, the burial ground is some distance away, the procession stops a little outside the city wall, and a fresh cortege, called the Travelling Procession, is formed. These are all fresh men, and are few in number. Only the near relatives go all the way to the grave.

All around Peking are the graveyards of the well-to-do. Their arrangement differs little. There is an entrance gate facing south, and behind that a little avenue of pine trees leads up to the grave mounds. These are the tombs, and behind them a semi-circular rampart of earth runs round guarding them from the north. The graveyards of the rich are enclosed within a wall, and have one or two buildings which serve as temples in which to prepare offerings and pray. Before the tombs stands a marble table with marble sacrificial vessels. Those of the well-to-do have no buildings, walls, or tables, but are kept free from cultivation, and are carefully planted with trees. The poorer graves are speedily surrounded on all sides by the crops, and are gradually absorbed by them.

# The Chinese National Wireless Co.

In the June issue of the FAR EASTERN REVIEW the formation of the Chinese National Wireless Company was announced. The Board of Directors has since been appointed as follows: Vice-Admiral Chen Ngen-tao, Chief of the Executive Board, Ministry of the Navy, Peking; Lieutenant-General Ting Ching, until recently Director-General of Military Operations, Ministry of War, Peking; Lin Chih-hsin, a Chef du Bureau of the Ministry of Communications, Peking; Mr. Godfrey C. Isaacs, Managing Director of Marconi's Wireless Telegraph Co., Ltd., London; Mr. T. A. Barson, Chairman of the Peking Syndicate, Peking; and Mr. A. H. Ginman, Representative in China of Marconi's Wireless Telegraph Co.

The Company was formed as a result of the agreement made between the Chinese Government and Marconi's Wireless Telegraph Company, Ltd., of Marconi House, Strand, London, as published in the May issue of the FAR EASTERN REVIEW. The Company is a joint stock limited liability company created to manufacture and deal in wireless telegraph and telephone apparatus, material and supplies, and to repair and maintain wireless installations now existing and hereafter to be established. The capital is set down as £700,000 divided into 700,000 shares of £1 each. The agreement stipulated that £200,000 of the capital was to be paid up upon signature of the agreement, one-half by the Marconi Company and the other by the Chinese Government, the latter having the option, after twenty years, either to buy out Marconi's or sell out their own shares. The Marconi Company grants to the Chinese Company the right to use in China, so long as it is a party to the terms and conditions of the agreement, all the Marconi Company's patents, rights, designs, drawings, and secret processes, past, present and future for wireless telegraphy and telephony, in return for one-third of the net profits, though this payment will be discontinued should the Chinese Government eventually buy up the entire Chinese Company. The Chinese Government also has the right, at any time, to abolish the one-third distribution of profits to the Marconi Company by the payment of lump sum to be determined by negotiation, but not to exceed £300,000.

The Company is to utilize materials produced in China in preference to imported materials in all cases in which such materials are neither lower in quality nor higher in price than the imported materials. Chinese will be employed on the personnel as far as possible and as soon as the Company's works are in operation a school will be established nearby for the technical education of students, the expenses of the school to be borne by the Company.

The new company starts operations with a distinct advantage over similar Marconi affiliations formed throughout the world in that these companies have had to bear the burden of experimenting and developing wireless telegraphy until it became a commercial factor in the efficient and cheap transmission of intelligence capable of competing, as it is now doing, with land-line telegraphs and cables in all parts of the world. China is undoubtedly one of the most fertile fields for the operation of wireless telegraphic communication because of her limited land lines and her tremendous distances. All the experience gained in other countries has been transferred by Marconi's Company to its Chinese associated company without payment until its operations show an actual profit.

A lucrative branch of the new Company will lie in the fact that it is an additional link in the world-wide Marconi organization for the equipment and maintenance of wireless telegraphic apparatus in the mercantile marine. For example during the past year the Marconi companies have equipped some 25 vessels in the area from Singapore to Yokohama, these equipments, with the installation engineers, having been transported from England, Canada or Australia, as the case may be. All such business can and will be transacted by the Chinese National Wireless Company at prices less than those now quoted because of the added costs, and these being abolished the Chinese company should show a larger profit than that obtainable under existing conditions. Similarly the Chinese company will act as repair and maintenance agents for its various affiliated companies operating vessels of all nations calling at Chinese ports. It is confidently expected, therefore, that the new company, of which the Chinese Government is joint owner, will become as profitable as the various Marconi companies formed elsewhere. The Chinese Government is to be congratulated upon being able to secure association with such a well-established concern as Marconi's, and to be affiliated with companies in Great Britain, United States, Canada, France, Italy, Spain, Russia, Argentine, Brazil and Australia.

SIBERIAN REFUGEES BEING HELPED TO SAFETY WITH THEIR GOODS AND CHATTELS ON AN AMERICAN ARMY TRUCK

# Activities of the American Chamber of Commerce

## *A Year's Record of the Organization Marked by Industry*

"In 1860 America took 47 per cent. of China's foreign trade. In 1904 this percentage had dropped to 14.9 and in 1910 it almost reached the bottom with 6.5 per cent. Since that time it has been steadily increasing until 1917 when America's percentage of China's foreign trade reached Tls. 156,000,000 or 16 per cent. of the total. We are now on the upgrade and I believe I am expressing the belief and certainly the hopes of all of the members here when I say that the next ten years will see America back in the position she occupied a half century ago. When I say this I do not mean that America is going to take away anybody else's trade, but that China's foreign trade will have so grown and developed that all nations will be receiving increased benefits as well as ourselves. America wants no privileges is China that she is not willing to concede to others and American merchants desire nothing but an equal opportunity in assisting in the development of this country."

These were the opening words of the report of Mr. J. Harold Dollar, the President of the American Chamber of Commerce of Shanghai, an organization whose growing importance is shown by the fact that the membership has increased in the last year from 65 firms and individuals to a present total of 200 firms and individuals. This growth of membership is also an excellent indication of American growth and prestige in China.

Continuing Mr. Dollar said:

"Although the total American trade in China for 1918, Tls. 135,820,249, shows a slight decrease from the previous year, it is really remarkable, for these figures represent what American merchants in China were able to accomplish in spite of the fact that America's total resources of men and treasure were devoted to the active prosecution of the war. In spite of the fact that the entire world was engulfed in war, China's total foreign trade, Tls. 1,040,776,113 showed an increase of Tls. 28,325,709 over the previous year. Although this increase is partly due to war prices, the fact still remains that China's trade is increasing and developing."

### Chamber Activities of the Year

From the remarks made on the accomplishments of the Chamber during the past fiscal year it is evident that members have been working steadily if silently in the advancement of American interests. For instance to quote a few of the Chamber's accomplishments during the year it has appointed a representative to the board of the Shanghai American School; it has launched a campaign both in China and abroad for funds for a modern American school in Shanghai; it has rendered assistance to the various Liberty Loan and War Relief campaigns; it has appointed a member to the International Committee for the Improvement of Sericulture in China; and it has drafted a bill providing for the incorporation of American Companies directly interested in foreign trade.

This last is an important reform in the present method of incorporating American business houses in China. As it is now American firms in China may be incorporated under the laws of any one of the States. This causes confusion in the minds of Chinese merchants who do not understand the law and legal procedure which varies in each of the American States, and if the bill becomes a law it will be possible to incorporate American firms in China that will attract Chinese capital and will place American firms in China on an equal footing with those of other nationality who have certain advantages through incorporation under laws which apply only to China.

There has been the fullest possible co-operation on the part of the American Chamber with the other Allied Chambers and some very important developments in this connection are soon to materialize, according to Mr. Dollar. It is noted also that the Chamber has distributed to ths leading Chambers of Commerce in America and to American firms interested in the foreign trade with this country a number of railway and commercial maps of China and this gift has received a most enthusiastic reception.

A complete review of the Chamber's achievements would take a great deal of space and all of them cannot be mentioned here. For example, the board has done some good work in negotiating with the Chinese Government for the protection of copyrights and trade marks; it has published a monthly bulletin which has had a wide distribution; carried on an extensive publicity campaign abroad, and has communicated to the American Minister and to the State Department at Washington information that will serve to acquaint the world with the problems of doing business successfully in China.

### The Chamber's Recommendations

In order that American trade may have an equal opportunity for development in China with other nations the Chamber has raised a number of points which must be considered and solved and Mr. Dollar again brought them to the attention of the members. For example, it is necessary that substantial encouragement be given to American loans to China and to the sale of Chinese securities in the American market for the reason that in China trade follows the loan.

Another point is the necessity for adequate shipping facilities under the American flag, not only on the Pacific but on the Yangtze River; and it is imperative that American ships carry American goods under freight rates as favorable as those obtaining in the European ports to Shanghai and capable of meeting the competition of Japanese ships carrying goods on the Pacific.

Some of the other needs expressed by the Chamber and which the Chamber believes must be satisfied are the need of American banking facilities capable of quoting dollar exchange and capable of participating in the commercial and industrial enterprises in China; incorporation of American firms in China under federal charter and free from income taxes; an American news service; and a language school at Peking for accommodating a hundred students, for the training of young Americans in the study of Chinese language and customs with a two-year course and an allowance for $1,000 a year for each student during training. A rather ingenious plan is that for a selective draft system for use in recruiting men for the Legation Guard and the Infantry Regiment in Tientsin so that those who profess a desire to study Chinese and fit themselves for work in China may be given preference; the construction of modern buildings in American style furnished throughout with American equipment for the use of Consuls, and in these consular buildings a space set aside for American-made machinery and other products with a large auditorium and other rooms for the use of American trade organizations.

Some of the proposals for reform which are given in a concrete form which will bear reprinting. According to Mr. Dollar:

"Unless the concessions in the important treaty ports of China at present held under special national auspices are internationalized or extraterritoriality abolished it will be necessary for the furtherance of American trade that American interests secure from the Chinese Government, concessions for the residence and operation of Americans and American firm.

"All foreign troops quartered in China other than those provided for by the Protocol of 1900 should be withdrawn from the country and all spheres of influence abolished in order that the principle of the open door of equal opportunity shall actually prevail which will be the only safe guarantee to the free extension and development of American trade on a basis of equal opportunity in competition with that of other nations.

"The present trans-Pacific cable service is entirely inadequate to the needs of American trade in the Far East. In the Atlantic there are 11 cables, whereas we have but one on the Pacific and this is constantly breaking down, and its rates are very high. We need a direct wireless service between the Pacific Coast and China, viâ Hawaii and the Philippines, in addition to another trans-Pacific cable, and rates at least one-half of those which obtain at present if we are to compete successfully with European and Asiatic firms.

"Under the present agreements pertaining to extraterritoriality existing between China and the Foreign Powers, American and European merchants are limited to the treaty ports which have been opened to commerce. In spite of this limitation which is supposed to be placed upon all foreigners who do business in China, it is constantly violated by merchants of a certain power who have establishments all over the interior parts of the country. We believe that the American Government should at once demand that American merchants be permitted to establish themselves in China at every point where other foreigners are permitted to go. The present condition is a distinct violation of the 'Open door' and a needless restriction upon American and European merchants and should be remedied at once. The fact that the total foreign trade of China is not much in excess of the foreign trade of Switzerland, is an excellent example of the futility of China's restrictions upon the proper activities of foreign business men.

"Another element that is handicapping the growth and development of China is the lack of modern means of transportation. China with a territory in excess of that of the United States and with a population four times in excess of America has less than 7,000 miles of modern railroads, or less than the total mileage within the boundaries of several of the American states. Furthermore China will never have a system of modern railroads until the present pernicious "sphere of influence" system is abolished or modified. India with a less population and a territory less valuable in natural resources than China has 30,000 miles of railways that are profitable enterprises. All of the railways of China should be standardized and unified and placed under the supervision of a competent board of experts, otherwise the development of the country will be retarded."

Closing the report Mr. Dollar said:

"The most gratifying element in this plan for reconstruction in China is that the real business and political leaders of China are now actively favoring the assistance of liberal minded foreigners in the development of China. It is unfortunate that a union has not as yet been effected between the conflicting political elements is China but we sincerely believe that the near future will see self-sacrificing patriotism triumphant in this critical period in China's destiny. China is now dealing with a new world a world that has been chastened by war. Liberal democratic nations are now at the helm of the world and by making the effort China can place herself in this valuable fellowship.

"I desire to bespeak a continuance of the friendly relations that have always existed between the American and Chinese business men. Americans want to continue to do business in China. They want to conduct their businesses in a straightforward above-board manner and they ask no special advantage that is not accorded to others."

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It is not generally known that the brilliant black ink used by architects and artists abroad under the name of "Indian ink" is in reality the standard ink of the Chinese in liquid form. It is used by the Chinese writer in the form of slabs, or sticks, which are rubbed over a slate or stone tablet on which a little water has been poured, and when a smooth mixture has been obtained it is lifted by the Chinese brush which serves as a pen in the exact quantity desired for the alternately light and heavy strokes in delicate outline which make up the Chinese written language. The ink slabs are made from lampblack obtained by burning the oil of rapeseed or sesamum seed, or pork fat, varnish, and occasionally other materials, in a closed chamber. The lampblack is scraped from the walls and pounded to a paste with the addition of glue, after which musk or other perfume is added to give it fragrance, and pulverized gold leaf or other metal is pounded in to give it lustre. The paste is moulded in wooden forms in cakes which average 30 to the pound, and in the form it takes when ready for the market is usually decorated with a quotation from the Chinese classics and the maker's trade-mark. Sometimes it is moulded in the shape of a native saint or one of the "josses," and put up in a fancy case to make a gift for presentation among scholars. The ink is turned out in numerous grades the best of which, perhaps, is made of the soot of wood oil, with a mixture of isinglass, camphor, musk and gold leaf, which is worth its weight in silver.

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A DECORATED SHOP FRONT, PEKING

# The Philippine Mining Industry

## *Notes on the Gold Mining Industry in the Islands*

BY FRANK B. INGERSOLL IN THE "MANILA BULLETIN" ANNIVERSARY NUMBER

The history of gold mining in the Philippine Islands runs back through the ages until lost in the mazes of tradition.

Chinese writings of as long ago as the third century report gold as the chief product of Luzon.

From Morga, a Spanish historian, we gather that, before the coming of Magellan, the Philippines carried on commerce with China in which gold, dye-stuffs and edible birds' nests were exchanged for cloth.

DIGGING LADDER OF MALAGUIT DREDGE

In this connection it is interesting to note that the leading gold-producing districts of to-day are the same which yielded most to the primitive methods of the native inhabitants in olden times.

The Filipino miners (especially the women) handle their wooden gold pans with a skill unexcelled in the world.

The Spaniards, always indefatigable prospectors, were active in the search for the Golden Fleece shortly after their occupation of the Islands. After Don Juan Salcedo conquered the region known as the Province of Laguna he heard stories of enormously rich gold mines on the Pacific coast of Luzon and at once started in search of them. After great hardships he reached a place called Paracale and verified the reports of the richness of the deposits worked by the natives.

There can be no doubt, judged by primitive standards, gold mining was for centuries successfully carried on by the inhabitants of the Archipelago. They had no machinery, no tools, no explosives and no pumps. But close to the surface —above water level—the native miner gouged out the rich stringers, pounded the ore into powder and panned off the free gold, just as he skilfully washed the top layers of the gold-bearing sands from the ancient river beds.

The implements which the natives use—a washing board and a large shallow wooden bowl—are of great antiquity and form a prominent feature in the household utensils of all native villages in the auriferous region. Boulders and fragments of quartz with visible gold occur in many alluvial deposits in the Islands and it is not likely that the natives would have thrown them aside without endeavoring to extract the gold. This they probably did in ancient times, as they do it even now, by pulverizing the quartz by hand and washing it as they wash the auriferous sand and gravel.

For pulverizing the ore the natives use a species of trip hammer, made by attaching a heavy stone, serving as a head, to a sapling. A second stone answers for an anvil. After placing the quartz on the anvil the workman drives down the head, the elasticity of the sapling raising it again for a fresh blow. The crushed quartz is ground in an arrastre, concentrated in a *batea* (wooden dish) and washed clean in a coconut shell. In this last operation a soapy vegetable sap (*gogo*), squeezed from a green vine, is added. This juice seems to have the faculty of cleaning the "greasy" gold and prevents the fine particles from floating. The only feature of this process which was introduced by the Spaniards is the Mexican "arrastre," a block of stone moved by carabao power like a mill stone on a nether block. The charge of an arrastre is about 250 pounds. Float gold and auriferous pyrites are lost in the process. It is doubtful to-day whether the natives as a rule are aware of the auriferous character of the pyrites which almost always accompany the gold-bearing quartz, sometimes in not inconsiderable proportion.

Before the advent of the Spaniards in the Philippines the gold won by the natives found its way into China through the medium of Chinese traders who visited these shores in their junks. The mining sections close to the sea coast were also favorite raiding grounds for hordes of Moro pirates, attracted thither by the gold, even after the Islands were under Spanish dominion. One of the most interesting stories, and one which seems to have some foundation in fact, is that of Doña Panay, a rich native woman of Mambulao, Camarines Norte, who sent a petition to the Queen of Spain asking protection against the pirates and accompanying her request with a present of a life-size hen and a setting of eggs, all of virgin gold. On the hill above the portal of the famous old "Ancla de Oro" tunnel in the town of Mambulao are the ruins of an ancient fort erected in response to the prayer of Doña Panay.

Back in those days, according to accounts more or less reliable, the town of Mambulao, which lies on a sheltered deepwater harbor, was the second city of the Archipelago with something like 60,000 inhabitants. To-day the entire municipality numbers perhaps 3,000 souls.

Tradition indicates that at many points in the Philippine Islands the placers were originally very rich; and this there is no reason to doubt. According to Morga the natives worked them with more energy before the Spanish conquest than after it.

Spaniards coming from Mexico early settled in Camarines Norte and brought with them the Mexican methods of treating the ore. In Morga's time (1609) the reduced royalty yielded $10,000 annually, and Gemelli Carreri learned from the Governor-General at Manila that the product was $200,000, which is a reasonable figure since such a royalty was sure to be evaded in a large measure.

Although Camarines Norte was the best known gold producer there was undoubtedly considerable of the precious metal turned out in Benguet and Nueva Ecija on Luzon, at Aroroy in Masbate, and in Misamis and Surigao in Butuan province.

MILL OF SYNDICATE MINING CO., MASBATE

One of the most romantic episodes in the history of Spanish mining in the Philippines was the career of the famous "Ancla de Oro," a com-

pany which was organized to develop the *veta real* at Mambulao. This company planned to obtain access to the vein below ground-water level by constructing a sea-level drainage tunnel. The prospectus described the deposite of the "Benditas Animas" a claim which had been bought and sold as early as 1788. The vein was said to be "two palms" wide, the quartz of it being literally "bedizened" with gold until it "has the appearance of the richest altar hanging," not only the vein but "the adjacent walls are also gold bearing." The document ends with the stirring appeal :—

"To those who love their country the opportunity now presents itself to show that they interest themselves in her progress and welfare. One hundred pesos is the cost of a share, payable in four installments. Even if our hopes which are fundamentally so conservative should not be realized the loss of one hundred pesos will bankrupt no one, so we have no doubt that all will take shares in the enterprise which is this day initiated.—Manila, March 19, 1848. Isidro Sainz de Baranda."

The tunnel was projected to run into the mountain for a distance of a thousand meters but actually penetrated but 75 meters, the difficulties encountered being too great to overcome with the crude methods and equipment of that period. The well preserved portal of their drainage tunnel may still be seen and is usually the first evidence of mining to catch the eye of those who enter the bay at Mambulao by steamer.

It remained for a company operated by American and Filipino capital seventy years later to complete a drainage tunnel at exactly the same site of the old "Ancla de Oro" after three and a half years of persistent work, attended by heavy expense and serious obstacles.

Activity in mining among the natives received a severe setback by the prohibition imposed by the Spanish government in 1894. It was shortly prior to this time that European capital (mostly British) began to make mining investments in the Philippine Islands. These were confined almost entirely to Camarines Norte. One British concern planned operations on a large scale. Several quartz properties were opened up and considerable expensive machinery brought out from England. Just when the project was getting fairly under way the Philippine insurrection of 1896 broke out. The English engineers in charge fled for their lives and the machinery and mine workings alike fell into disuse and decay. However, some of the machinery parts are still in evidence and have recently been made use of in operations.

From the outbreak of the insurrection until the establishment of civil government by the United States in the Islands in 1901 mining languished.

MILL OF COLORADO MINING COMPANY

Nevertheless during the latter part of this period venturesome spirits—mostly ex-soldiers of the American army of occupation—were busily prospecting. Although they made efforts to stake and record claims by proceedings patterned after the practice in the United States, there was no legal recognition of such steps until after the passage of the Philippine Bill (the Act of Congress of July 1, 1902), which put a new mining code into effect.

From that point there has been a steady growth in the mining industry, notwithstanding that there has been a scarcity of capital, a lack of transportation facilities, of reliable labor and of competent superintendence and insufficient and to some extent unfriendly laws, together with a want of appreciation both by the Government and by the people, of the importance of the industry.

Although prospecting and development was actively going on during the first few years of American occupation, the gold output did not reach appreciable figures until 1907 when it amounted to Ps.187,647. Thereafter there was a steady advance in production until it reached Ps.3,011,755 in 1916.

In 1917 it fell down to Ps.2,816,638 while for 1918 it will probably be still slightly less.

The recent falling off in the output is largely due to war conditions which prevented continuous operation from lack of proper materials and supplies. Added to this there has been a decided letdown in the production from dredging. This has been confined entirely to one field—Paracale—where the alluvial deposits are being exhausted. Although attractive fields have been proven by testing in other districts, war costs have put a prohibition on any new installations.

At present gold mining is limited to three districts—Masbate, Benguet and Paracale. In Benguet there is but a single quartz mill operating, while Masbate (Aroroy) has two. At Paracale five dredges are at work.

The future of gold mining presents some difficulties, at least until operation costs have been cut down to something like normal. Conditions which increase the cost of operation often serve to change a paying mine into a losing one. This is well illustrated by the effects of the recent great war. The outlay for materials, supplies, labor and in fact for everything which enters into operation costs has increased tremendously. In other lines of industry the increased costs of operations has been met by increasing the selling price of the product. As the selling price of gold always remains fixed no remedy is open to the miner. His business which pays under ordinary conditions is now changed into a losing venture.

It is not in the Philippine Islands alone that gold mining has suffered in consequence of the war. The effects have been world-wide. In the United States many properties, operating on a comparatively small margin of profit but on such a large scale that the total of profits was tremendous, have suspended operations awaiting normal conditions. There is a great deal of discussion over the remedy to be applied and numerous suggestions have been put forward by operators and legislators. Without reviewing these here it is apparent that the Federal government as well as those of the different mining states are determined not to permit a decline of this important industry. Suitable legislation and liberal treatment by administrative officials seems to be the program on every hand.

Here in the Philippine Islands there has in times past been considerable to complain of on

CLEANING UP SLUICE BOXES OF CANSURAN PLACER, FIRST HYDRAULIC WORKINGS IN PHILIPPINES

the part of mining operators as to their treatment by the Government. Without rehearsing unpleasant history it may fairly be summarized by stating that this status arose out of overzealousness on the part of certain administrative officials who did not seem to realize the importance—from the Government's standpoint—of developing young industries.

The present government attitude, both legislative and administrative, has all the earmarks of being liberal—a constructive policy aimed toward building up all lines of industry and particularly those which tend to the development of the natural resources of the country.

With a reasonable period of waiting to permit economic conditions to adjust themselves there seems no good reason why the gold production should not shortly resume its upward march. Undoubtedly the gold deposits of the Islands are widespread. Hardly a stream from whose sands some showings of gold cannot be panned. Only insignificant percentage of the mineral ore has as yet been properly prospected. While there are failures to record in mining operations there are other instances which demonstrate that mining can be carried on profitably.

To summarize briefly what seems to be needed is more capital, with which, properly utilized, to do more thorough prospecting and preliminary development, to install more modern and effective equipment, to tide over temporary backsets, to procure more efficient management and superintendence.

Of the considerable number of mining engineers of prominence who have visited the Islands not one has condemned them but all have insisted on the great necessity of the measures above noted.

This article has been limited to gold mining for the reason that there has been almost no mining development in other branches. However, there are indications of valuable mineral deposits of various kinds throughout the Archipelago.

There are strong showings of petroleum in Tayabas, Cebu and Mindanao.

The indications are that it would pay to develop many of these deposits and the present rea of prosperity and development should within the next few years witness a considerable production in several branches of the industry outside of gold mining.

# New Peking Building for International Bank

The International Banking Corporation has moved its Peking offices temporarily to quarters on Marco Polo Street, while a new building is being erected. The new building is situated on Legation Street between the properties of the Russo-Asiatic Bank and the Banque de L'Indo-Chine. The building is a reinforced concrete structure four stories high, faced on the

NEW BUILDING AT PEKING FOR INTERNATIONAL BANK

Legation Street and East and West sides with Peking granite from grade up to the top of the roof parapet. The building is designed in the classic style. The entrance from Legation Street is through a five bay portico in the Roman Ionic order.

The first floor of the building is devoted entirely to banking purposes, the foreign public space being placed in the centre of the front portion of the building with the working space directly behind, and the manager's and compradore's offices on either side. The foreign public space and working space are both two stories in height, the walls of the former being of Cane Stone enriched by the introduction of Cane Stone pilasters and arches. The flour of this room is of marble, while a rich Italian coffered ceiling overhead will give the room a high and lofty appearance. The illumination of this room is by indirect lighting, thrown on to and reflected from the ceiling.

Special provisions have been made for the accommodation of Chinese clients by the introduction of a Chinese banking room along the west side of the building with a special entrance to this portion of the building. Along the east and west sides of the building over the compradore's office and the manager's office, a mezzanine floor has been arranged to provide for additional working space, and for stenographers and files. Communication with this mezzanine is by staircases from the working space.

The finish and fittings throughout the banking floor of the building shall be up to the standard of the most up-to-date American Banks, and although smaller will carry out the general effect of the new National City Bank, New York.

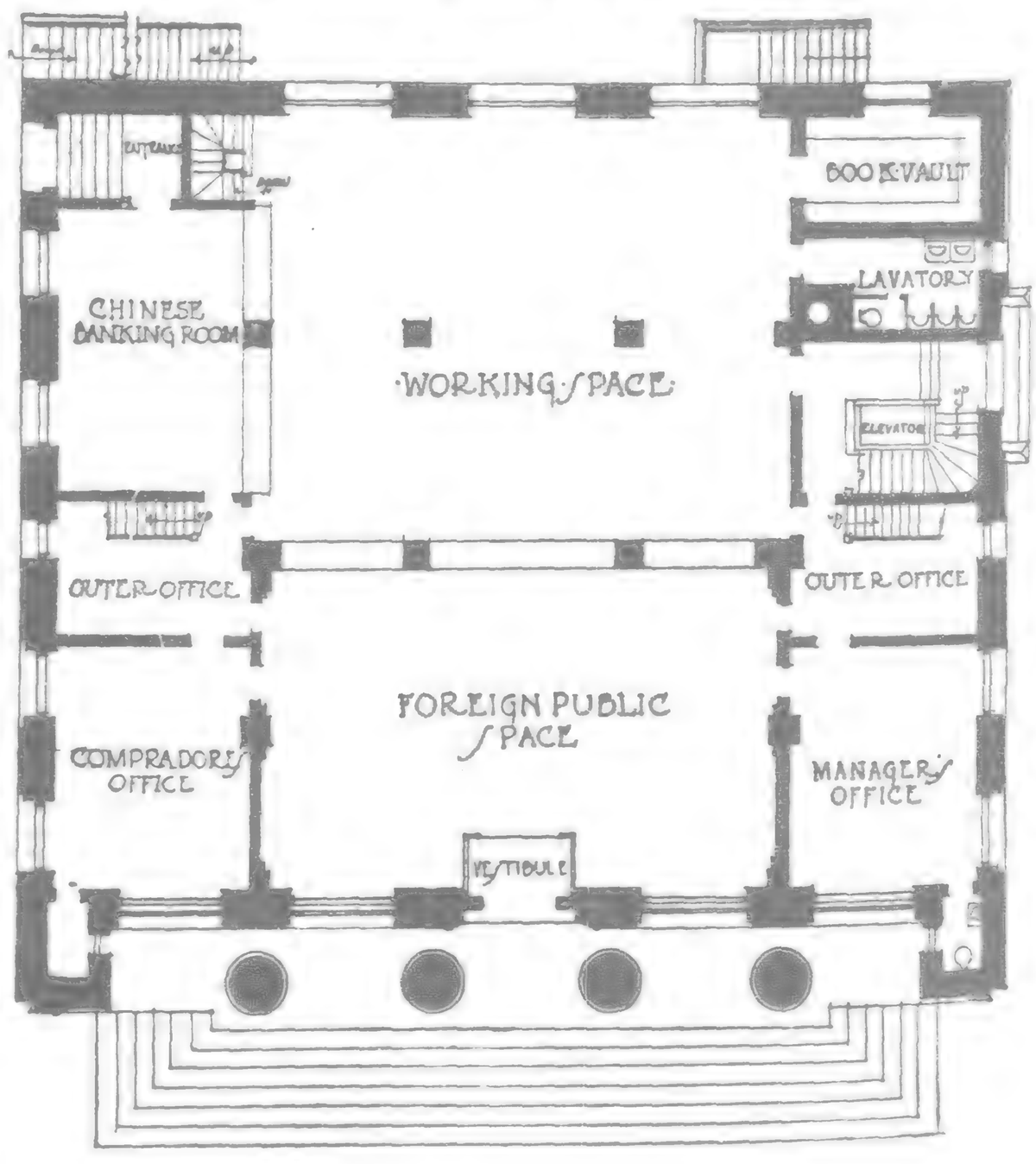
The second and third floors of the building are given over to the living quarters of the staff and the manager's apartment, respectively. Access to these floors is from an entrance on the west side where a passenger elevator and staircase leads to the floors above. Spacious verandahs have been arranged along the south side of the building on both the second and third floors, which are fitted up in accordance with the best American practice. Electric light, steam heating and modern sanitation are provided on these floors, as well as on the floors below.

Teak trim is being used throughout the first floor, while the upper floors are being finished with Manila hardwood. Wood floors throughout the building are of oak.

The bank's vaults and safety deposit boxes will be located in the basement, where dry and spacious quarters have been arranged for them.

Accommodation for the Chinese servants is provided in a special building behind the Bank Building proper.

The general contract for the construction of the building has been awarded to the Fu Shing Engineering and Construction Co., of Peking, while the reinforcing steel is being furnished by Messrs. Andersen, Meyer & Co., of Shanghai, Murphy and Dana of New York and Shanghai being the architects.




FIRST FLOOR PLAN

# Japan in the South Sea Islands

## The Central Pacific to be a "New Japan" in Ten Years' Time

When Japan took possession of Dalny from the Russians at the time of the Russo-Japanese War her nationals immediately set to work to utilize what the Russians had to that time created and to improve thereon for their own benefit. Thousands of Japanese traders and merchants, with a good sprinkling of industrialists, entered the place and set up business where they could in existing buildings or began erecting new houses and shops and factories to meet their needs. In a very short time after occupation Japanese enterprise was in full swing, and critics were not slow to allege that the character of the occupation indicated that either the Japanese were certain that they would succeed in holding the place when peace was signed, or that they had in the making quite a handsome bill of costs for indemnification for improvements, etc., should the peace terms end in the restoration of the city to the Russians. As it happened the city remained in Japanese possession and they maintained their holdings and have since made of it an exceedingly important commercial port.

Following the precedent set at Dalny merchants and others acted in a similar manner immediately Tsingtao was occupied by the Japanese military forces. Houses erected by the Germans were occupied, factories were taken over, and the operation of existing enterprises was resumed by Japanese skilled in the various undertakings. In addition to this, new buildings were erected; new factories were installed, and shops, and banks, and other concerns auxiliary to the leading factors in modern commercial and industrial life quickly began to spring into evidence. Again observers began to see preparations for the reaping of handsome indemnities should the Peace Conference decide against the Japanese maintaining proprietorship of the acquired property, but once again the critics lived to see the Japanese confirmed in their holdings and able to enjoy the fruits of the enterprise and energy exhibited by those who followed so closely upon the heels of the armies.

As Dalny and Tsingtao happen to be in the eye of the world, in addition to possessing great political, commercial and industrial potentialities so far as China is concerned, the idea prevailed that perhaps the faculty the Japanese demonstrated as possessing of acting without hesitation in the investment of large sums in areas not yet allotted to them as spoils of war was confined to places near home and was merely part of the national programme decided upon with regard to securing a footing on Chinese territory, or of making some one else pay heavily to have them ejected. As a matter of fact news comes from the South Sea Islands that steps similar to those which were taken at Dalny and Tsingtao were also instituted there, and between the time when the Japanese occupied those islands and the proclamation of the armistice they had control of everything worth having and had inaugurated various reforms with commendable promptitude and thoroughness. Mr. Thomas J. McMahon, writing in the "Sydney Bulletin", gives much illuminating information concerning the things the Japanese have accomplished in the Marshall Group in the short space of four years, and the splendid foundation they have laid for the other things they mean to accomplish. Mr. McMahon was inspired to write his article by the remark attributed to President Wilson that he "could not see what the Japanese could do with the Marshall Islands, as they were neither commercially nor strategically important," and from his observations, which coincide with what was observable at Dalny and Tsingtao, Mr. McMahon paid the Japanese the compliment of being "no laggards, no dreamers, no wasters of time or of opportunity." In their practical utilization of what was offering at the Marshalls they were, according to him, "thoroughly Spartan-like in their ideas of colonization, and these qualities are producing the most startling results in commercial activity, to say nothing of strategical advantages." And he continues:

"The Marshalls are in a vast, little-traversed solitude of the Pacific, and it is not fair to such an energetic people to suppose that they are sitting down twirling their thumbs awaiting the decisions of the Peace Conference as to what is going to be done with the group. If President Wilson is alive in ten years' time, as it is to be hoped he will be, he will then have learned an appreciation for Japanese ability, for the Central Pacific will be by that time a 'New Japan,' and there will radiate a Japanese commerce through the whole of the Pacific that will leave no room for any commercial efforts from America. In ten years' time the Pacific could be held, and firmly, by the activity, the determination and the cleverness of the Japanese as they are manifested to-day in the one little group of the Marshalls.

"The natives, it is most apparent, consider themselves and their future in Japanese hands. They have adopted Japanese ideals and customs, and the Japanese authorities are worthy of all praise for the skilful and diplomatic manner in which they have gone to work to Nipponese their protegées. The native kings and chiefs and their families have all been taken to Japan by the authorities to let them fully realize the greatness of those that have come to rule over them and assure their prosperity. The Marshalls were taken over on terms of occupation similar to those by which the Australians are holding German New Guinea; for these islands were part of that territory, or at least under its administration. The Australians are administering German New Guinea according to German law; that was the agreement signed by General Holmes, and approved by the British Government. But in the Marshalls German law has given place to Japanese regulations, full of promise and progress. All German schools are closed and all missions silent in all the lagoons except Jaluit, and even there the German Sacred Heart Mission and the American (or Boston) Mission are inactive. But there is a flourishing Japanese school, under Japanese teachers, for the native children gathered from all lagoons. The Japanese tongue is compulsory. Japanese customs tariffs have superseded German tariffs, and all port and shipping dues are Japanese, Japanese traders have stations in nearly every lagoon, though regulations have closed certain lagoons from the attentions of any trader. Japanese goods, from needles to anchors—preserved fruits and patent medicines, sewing machines and bicycles, sauces and lager beers, walking sticks and gold watches, scents and pomades, boots and clothes, all attractively produced—have taken hold of the islanders. The traders have set out to acquire an intimate knowledge of the peculiarities of the Islands trade, and have succeeded so as to allow room for little competition. Four years ago their trade in the Marshalls was not worth a toothpick; to-day it commands the whole of the group. For twenty-five years Burns, Philp & Co., the representatives of Australian commerce, valiantly and fairly fought the Germans for the rights of trade; in less than four years the Japanese have almost mopped up the lot. Their trading vessels multiply, and many more are building on the stocks of Japan. These and other circumstances prove the value the Japanese merchants put upon the Marshalls and the harvest they intend to reap.

"The authorities at Jaluit, the capital, have issued regulations to the natives, requiring the planting up of waste and hurricane-swept land within three years. This will have the effect of more than doubling the present output of copra, adding enormously to the prosperity of the group in less than 10 years. The natives have been rather flurried by the regulations, and have petitioned that they be not enforced, pleading that there is not the labor to fulfil the conditions. But they are hard at work to-day, nevertheless, planting those waste lands. The Japanese give no encouragement to idlers, and many of the natives already see that this new energy will be for their own good. The natives, too, understand that new industries are to be started, financed by far-seeing merchants of Japan, which will eventually make them a people no longer to be accounted 'black barbarians without hopes or ambitions.' Already many new uses have been found for the products of the cocoanut, and the Japanese share their knowledge for the advantage of the Islands people.

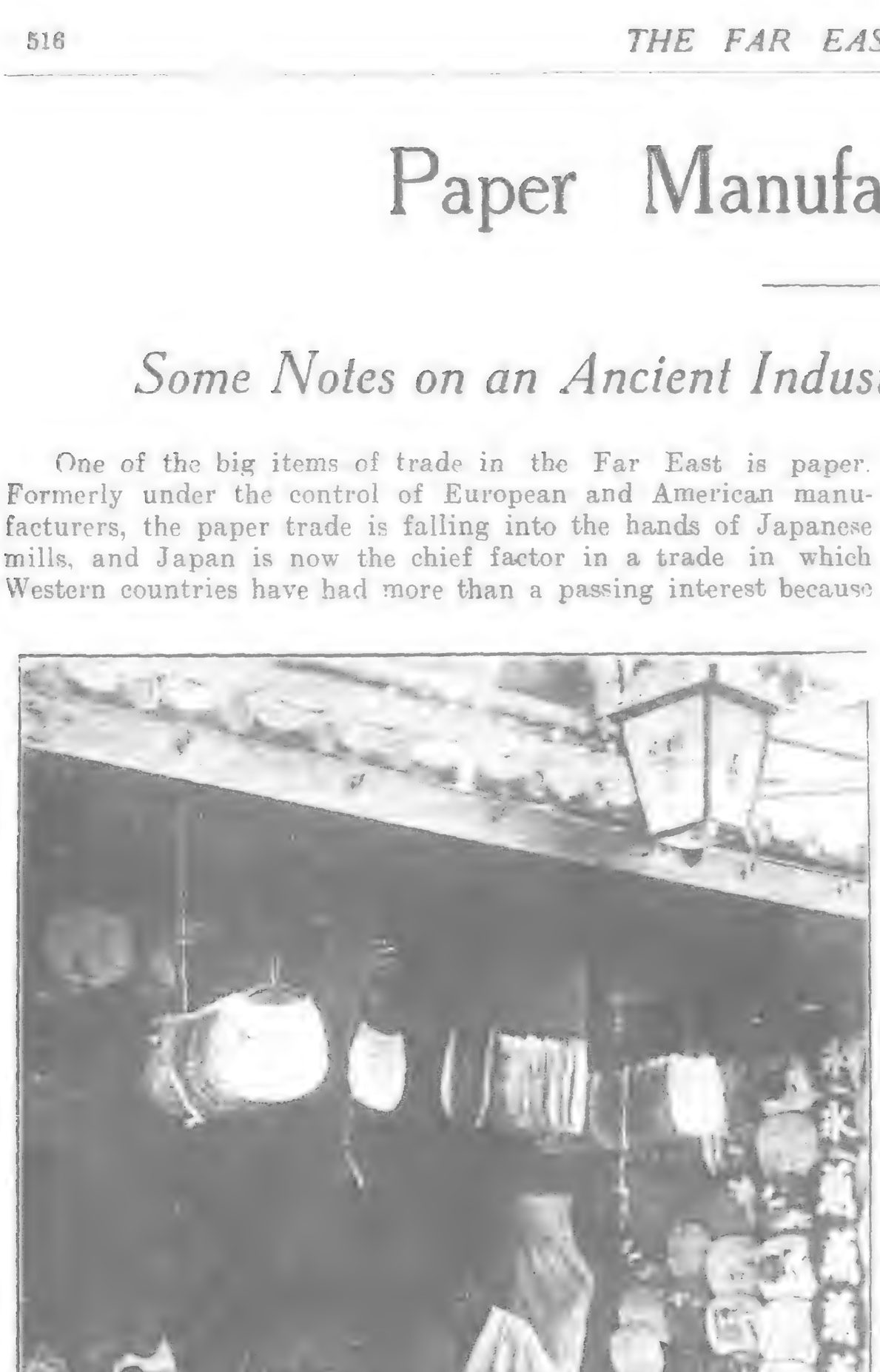
"Every Japanese official and trader one meets is fully impressed with the possibilities of the islands of the Pacific, and whatever claims Japan has will most certainly be pressed. She has come into the Marshalls, and she is fully persuaded that it is well worth while staying. For the rest, the work her various agents have accomplished is worthy of all praise; and though the Islanders may feel the hardship of being suddenly roused from their easy and slothful ways, they find masters who do not brutalize them as did the Germans, who build them up in bodily health, and fit them in strength and intelligence for the future and its more strenuous endeavors.

"I make no comment upon how all this affects or may affect Australia. I simply state the facts, a knowledge of which is essential to any judgment upon the question of Pacific control."

# Paper Manufacture in Japan

## *Some Notes on an Ancient Industry and Modern Japanese Methods*

One of the big items of trade in the Far East is paper. Formerly under the control of European and American manufacturers, the paper trade is falling into the hands of Japanese mills, and Japan is now the chief factor in a trade in which Western countries have had more than a passing interest because



FAN MAKERS.—THE CHEAPER PAPERS GO INTO SUCH FANS AS THESE, MANY OF WHICH ARE EXPORTED

of their nearness to pulp forests and for their sales organizations which were formerly well established in the Orient. Prior to 1913 Japan was a large buyer of foreign paper, and the bulk of its imports came from Europe, chiefly the United Kingdom. With the advent of the war, high freight rates caused prices to rise enormously; the result was that the imports of foreign paper declined, and the paper manufacturing industry in Japan was given an impetus the effect of which is still felt and may continue to be felt. In fact, Japan has become an exporter of papers made in the foreign style, where formerly she was an importer. Before passing to the question of Japanese manufacture and export, it is interesting to observe the trend of the remaining import trade. While imports into Japan from Europe continued during the early years of the war (in 1916 Great Britain furnished 46 per cent. of the total Japanese imports, Sweden and Norway combined furnished 24 per cent., and the United States 25 per cent.), in 1918 America took the lead with 85 per cent. of the total, while Great Britain supplied only 10 per cent. and Sweden and Norway combined but 3 per cent.

The Japanese factories engaged in the manufacture of machine-made paper concentrate on the production of printing paper, nearly one-half of their total output consisting of news print and one-fourth of other printing papers. Not only are they producing sufficient news print for the Japanese press, but are producing a surplus which permits exportation. Only the quantity of available pulp has limited their output.

Prior to the war, pulp was imported from Germany and Sweden; and imports in 1913 amounted to more than 50,000 tons—representing 43 per cent. of the total amount required by Japanese paper mills. With the increasing freight rates, every effort was made in Japan for the enlargment of the Japanese pulp mills, but expansion was restrained by the lack of the necessary machinery; and the Japanese paper manufacturers at last turned to Canada and the United States, from which countries a great part of the import of 16,000 tons in 1917 and 30,000 tons in 1918 was taken.

The manufacture of European paper is concentrated in the hands of a very few companies. In 1916 just two companies—the Oji, with an output of 151,000,000 pounds, and the Fuji, with 126,000,000 pounds—produced one-half of the European paper manufactured in Japan. For later years complete statistics of the industry are not available. In 1917, however, the production of 13 mills, which in 1916 furnished over 70 per cent. of the total output, increased 50,000,000 pounds.

In the case of news print the concentration is still more marked. The total production of this grade of paper in Japan in 1918 was estimated by the trade at 177,000,000 pounds, of which amount the Oji mills, contributing 98,000,000, and the Fuji mills, 46,000,000 pounds, furnished 80 per cent. Naturally this branch of the industry is located near the forests. Hokkaido is credited with 40 per cent. of the total output of printing paper.

The big companies work closely together. The level of prices within the country is kept as high as possible without encouraging the importation of foreign paper. This statement applies particularly to news print, of which there have been but few shipments to Japan in recent years. These shipments came in cut sheets, and occurred only when a temporary change in foreign prices offered the opportunity of profit, or when the paper was required for some special use.

OILED PAPER IS USED IN THE MANUFACTURE OF JAPANESE UMBRELLAS, ALTHOUGH SILK IS TAKING ITS PLACE FOR THIS PURPOSE

## Big Prices and Profits

The difficulty of obtaining foreign paper naturally resulted in a rapid advance in the price of paper in Japan. The prices were determined by the foreign price, with the addition of high shipping charges and also an allowance for the delay and uncertainty involved in obtaining export licenses.

FINE PAPERS OF COUNTLESS VARIETIES ARE USED IN THE MANUFACTURE OF FOLDING FANS

The price of one kind of printing paper known as Golden Eagle, a book paper of rather low grade, which sold at 4.7 cents per pound early in 1914, advanced 1 cent in 1915, 2 cents in 1916, and 4 cents in 1917. Another grade, known as Golden Kite, brought 5¾ cents per pound before the war and 20 cents per pound in the latter part of 1918. A very low grade of news print, known as Lily, was quoted at 10½ cents per pound in July, 1918, but had advanced to 13½ cents per pound by November 1.

This advance in price naturally redounded to the advantage of the paper companies. The Oji Paper Co. paid dividends of 7½ per cent. in 1913 and 25 per cent. in 1918, and the dividends of the Fuji Paper Co. increased from 9 per cent. in 1913 to 15½ per cent. in 1916, 22½ per cent. in 1917, and to 26½ per cent. during 1918. Aside from these high dividends the companies materially increased their reserve funds.

While the receipts of the paper companies have been large the expenses also have advanced, though not to the same extent. It is believed, however, that a comparison of the costs, derived from the financial reports of the two companies will give a safe indication of the relative costs in Japan. Both companies produce book paper as well as news print, and the larger proportion of news print produced by the Oji mill explains, in part at least, its lower production cost. The most marked difference is found in the cost of materials, which averages $22 more per ton of paper produced for the Fuji than for the Oji company. The expenditure for salaries seems high. The cost of labor exclusive of bonuses is less than that reported for the United States by the Federal Trade Commission, even in the case of news print; but if the bonuses are added, part of which go to the salaried officers, the result is above the American cost for news print, but only about half the labor cost of book paper. The average cost of paper stock for book paper in the United States is between the figures for the two Japanese mills. Approximately two-thirds of the product of the Oji mill and one-third of that of the Fuji mill is news print, and most of the remainder is book paper.

The high prices were generally recognized as the result of the war. While they did not decline immediately upon the conclusion of the armistice, the market weakened and the manufacturers and paper merchants took steps to safeguard the interests of the trade. A national organization was formed in December with the announced object of making a united effort to retain the markets already gained and to develop new export markets. As a means to this end, a special export discount was agreed on. No material reduction in price had taken place up to the date of the last reports, but one was expected as soon as supplies from the United States and Europe could be received freely.

Until European and American competition is resumed it will be impossible to determine how firmly intrenched the Japanese mills have become. Their costs of operation are high, their raw material is expensive, and their expansion and success have been achieved on an abnormal level of prices.

## Paper-making an Ancient Industry

The manufacture of paper has been carried on in Japan for many centuries. The product now generally known as Japanese paper was described by the early Dutch traders nearly 250 years ago. This product has served all the uses to which we put paper—book printing, covering for doors and partitions, writing, and wrapping—and, in addition, has been utilized by the Japanese as a substitute for string, cloth, oilcloth, leather, and even wood, iron, and glass. Its excellent lasting qualities and its superiority over machine-made papers have led to its utilization for a number of purposes for which foreign paper would be unsuitable. These advantages are due to the fact that in making this paper the Japanese use the tough and pliant inner bark from three or four species of deciduous trees, possessing long, tough fiber cells, and this bark is not cut or hacked in transforming it into pulp, but is separated by pounding and beating, so that the long cells remain unbroken.

In the manufacture of this paper the form is held so that the parallel splinters or threads run from left to right. The form is then lifted and lowered at right angles to this direction, causing the fibers of the material to lie in one direction. Japanese paper is consequently torn easily one way, but with difficulty the other. There is no special sizing or glazing, but each sheet has a rough and smooth side, resulting from the process of drying. The shaped sheets are pasted with a large brush on a smooth planed board to dry, and the side against the board remains much smoother than the outside surface. The smooth side is used for book printing and the two rough sides are folded against each other in binding the book, so that Japanese books consist of double sheets of thin paper.

All Japanese paper is very porous, and consequently cannot be written on with pen and ink, although it is well adapted to the Japanese mode of writing with brush and india ink. Smooth, firm, machine-made paper would not absorb this ink so well, and is therefore not in demand. There is no process of bleaching, and Japanese paper is of a yellow tint, although sometimes whitened by the ingredients used to soften it in manufacture.

## Varieties and Quantity of Production

Paper produced in Japan may be divided into two general kinds—Japanese paper as described above and foreign or machine-made paper. Aside from the nature of the product, the two industries are further distinguished by the fact that the former is largely a household industry and the latter a factory industry. The production of the Japanese paper in 1916 is officially valued at $12,370,336, which represents an increase of about 26 per cent. over the value of the production in 1907. No figures on the quantity production are available. Kochi Prefecture produced about 17 per cent. of the total and Ehime Prefecture about 10 per cent. Gifu and Fukuoka Prefectures produced about 6 per cent. each, and Tokyo, Hiogo, Shidzuoka, Kagawa, and Fukui Prefectures about 5 per cent. each.

In 1916 the industry employed about 45,621 families, including 60,885 males and 84,736 females, with an average daily wage of 24 cents. Recently increases of about 50 per cent. have been granted to these workers, owing to the increased cost of living.

## Uses of Principal Varieties Exported

Japanese papers derive their names almost exclusively from the towns or districts where they were originally made, and this geographical distinction perhaps accounts to some extent for the difference in grades. A short description of each of those figuring in the export trade is given on the next page.

Yoshino, manufactured in the town of Yoshino, in Yamato Prefecture, is a fine paper used extensively in the lacquer industry. The mold is a net made of finely wrought bamboo sticks bound together with silk thread, one quire of Yoshino (50 sheets), or about 6.12 square meters, weighing only 35 grams. The paper is so firm, however, that two or three layers used to filter thick lacquer are not only uninjured by the wringing and pressing through of the lacquer, but are afterwards smoothed out, dried, and used several times over for the same purpose.

Tengujo, literally "prize-crowned-labor," excels in fineness and pliancy the thinnest silk papers and is also much stronger. It is manufactured in Mino Province and is extremely well adapted for pasting on common window panes to make them opaque.

Mino is pure broussonetia paper made in the Province of Mino and is noted for its firmness. It is used for covering woodenwares in the process of lacquering, for cord, and as a covering for the lattice of sliding doors, as it is very transparent. The 1916 production was 275,293 reams.

Hanshi, literally "half paper," is so called because of its common use in book manufacture where only half the sheet is used, the rough surface being turned in. Its widest uses are for writing, printing, and paper handkerchiefs. Production in 1916 amounted to 3,266,195 reams of 100 quires (6.12 square meters) each.

Usuyo or gampi is at present used largely abroad as a copying paper in business houses, although its pliancy, smoothness, strength, and lightness will probably find other uses for it, as it becomes better known.

Torinoko is a semi-foreign paper which resembles parchment, and has enjoyed an increased sale abroad, especially in China, as a substitute for foreign parchments.

Renshi, literally "ream paper," is an imitation of the Chinese-sized papers put up in the same quantity, and is sold almost entirely in China.

Toyoshi, "Far East paper," is sold almost exclusively to China, where it is used for a variety of local purposes.

## Kinds Preferred for Domestic Consumption

Other varieties of Japanese paper, which do not figure in the export trade, but which are used largely in Japan, include hankire, resembling hanshi, and used for account keeping and letter writing; nishi-no-uchi and shi-fu-gami are made from broussonetia bark in very large sheets and are exceedingly strong and used as a fabric; atsu-gami and senka are very thick strong papers used in making imitation leather and oil papers; another heavy starched paper, ko-sugi, is cheaper and is used for cleansing purposes; iyo-masa is a soft paper and is well adapted for wrapping dried plants; hosho, one of the most valuable and expensive Japanese papers, is thick, very strong, of even texture and gloss, rich in starch, and often contains alum. It is used as the Government paper for all important legal acts, as a wrapping paper for expensive presents, and was formerly used for making paper money. It is made in the celebrated five villages of Hosho district in Echizen Prefecture.

Ju-mon-ji and jidzuki, otaka-gami, are large sheets of very thick, stout paper, used principally in the preparation of leather paper.

Suruga-ban-shi is a thin writing paper and is also used for cleansing purposes and printing.

Shoji-gami contains about 20 per cent. of Edgeworthia pulp and serves principally as the covering for lattices or shoji (sliding doors) and as a substitute for window panes.

Ita-me-gami, or board paper, is made by fastening together, with wheat-starch paste, a number of sheets of common paper. This pasteboard is frequently made from waste paper, old business documents, and other used paper, covered with a coating of fresh paper of good grade.

Japanese leather paper is very soft, has great elasticity, and resembles calf leather. It is used in the manufacture of leather portfolios, tobacco bags, pipe cases, boxes, small chests, and other articles, and also as a floor covering and as a protection from the rain over wooden shoes.

Oiled papers are made for two purposes in Japan, one for use as transparent paper in lanterns, etc., and another for protection against water, as for umbrellas, and regular oil and leather paper. For this product perilla-seed oil is invariably used and broussonetia paper of a stout grade is generally employed The paper is made pliant, either by kneading or by the well-known crepe process, and is pasted in the thickness desired with glue or paste made from the flour of the common brake. The sheets are then treated with a mixture of lampblack (for black waterproof cloaks) and the juice of unripe persimmons and dried in the sun for five days. Two coats of perilla-seed oil boiled with persimmon juice are then applied, drying taking place between the applications. The entire process requires about 15 days in good weather. Though far inferior in appearance and durability to oilcloth and western waterproof cloth, oil paper has served its purpose well in Japan for several hundred years.

Since the oiled Japanese paper umbrella could not be used as a sunshade nor the unoiled variety as a protection from the rain, the adoption of the silk umbrella, suitable for all weathers, has been rapid, and the Japanese manufactured silk umbrella is one of the few foreign articles used generally throughout the interior as well as in the large cities. The Japanese paper lantern made of oiled paper is still in general use not only in houses but also by jinriksha pullers. The advent of the electric bulb is changing things, but the paper lantern will be in use for many years to come.

## Increases in Production and Exports Comparatively Slight

The relation of the exports of Japanese paper to the production and the comparatively slight increase in both may be judged from the following figures, which give the value of the production in 1907 and 1916, and the value of exports for the same years and for 1917 :—

| Japanese paper | 1907 Production | 1907 Exports | 1916 Production | 1916 Exports | 1917 Exports |
|---|---|---|---|---|---|
| | $ | $ | $ | $ | $ |
| Hanshi and mino ... ... | 3,975,481 | 127,769 | 4,437,525 | 133,905 | 159,707 |
| Usuyo and gampi ... ... | 444,900 | 256,641 | 450,089 | 189,179 | 287,199 |
| Torinoko ... ... ... | (b) | 79,060 | 363,771 | 117,975 | 235,944 |
| Yoshino and tengujo ... | (b) | 39,879 | 176,133 | 64,048 | 81,609 |
| Toyo ... ... ... ... | (b) | 77,604 | 88,148 | 63,095 | 77,975 |
| All other ... ... ... | 5,332,625 | 112,923 | 6,854,670 | 315,576 | 138,535 |
| Total ... ... | 9,753,006 | 693,876 | 12,370,336 | 883,778 | 980,969 |

*a* Production figures for 1917 not available. *b* Included in all other.

Of the 1917 exports Kwangtung took 49 per cent. of the hanshi and mino paper, and China, 36 per cent.; 64 per cent. of the usuyo and gampi paper was exported to the United States, and 13 per cent. to Great Britain; of the torinoko, 64 per cent. was taken by China, 10 per cent. by Hongkong, and 7 per cent. by the United States; 53 per cent. of the yoshino and tengujo went to Great Britain, and 40 per cent. to the United States. China took the whole of the exports of toyo paper for that year. Of all other kinds of Japanese paper China received 40 per cent., Kwangtung 23 per cent., and the United States 10 per cent.

There are paper products made of a mixture of Japanese and foreign paper, such as pasteboards, packing paper, etc., and these have been included under exports of foreign paper.

## Foreign or Machine-Made Paper

The total production of European, foreign, or machine-made paper in Japan in 1916 amounted to 558,588,246 pounds, as compared with 197,506,826 pounds in 1907. The quantity and value of the various classes produced in 1907 and 1916 were:—

| Kinds of paper. | 1907 Pounds | 1907 Value | 1916 Pounds | 1916 Value |
|---|---|---|---|---|
| Print paper ... ... | 89,722,026 | 3,202,900 | 311,253,680 | 13,848,104 |
| Pasteboard ... ... | 36,195,789 | 606,716 | 122,126,075 | 1,450,342 |
| Cigarette paper ... ... | 7,255,851 | 348,424 | 9,516,835 | 1,068,503 |
| Match-box paper ... | 3,161,296 | 114,587 | 7,458,800 | 581,507 |
| Renshi (ream paper) ... ... | — | — | 7,841,322 | 318,821 |
| All other ... ... | 61,171,864 | 1,965,992 | 100,391,534 | 4,648,797 |
| Total ... ... | 197,506,826 | 6,238,619 | 558,588,246 | 21,916,174 |

The paper produced in 1916 was made in 51 modern mills, representing a total capital of $15,698,812, in which 301 electric engines of 31,667 horsepower, 181 steam engines of 19,608 horsepower, and 46 water-driven engines of 13,886 horsepower were used, making a total of 528 engines of 65,161 horsepower.

There were employed in the industry 7,762 males and 2,528 females, or a total of 10,290, and the plants averaged 18 working hours a day for 306 working days. The individuals did not, of course, average much more than half that number of hours; in some districts the mills running one shift of 11 hours, and in some two shifts of 11½ hours each, while in others shifts of 8 and 9 hours are the rule.

The main producing districts, with the paid-up capital and value of production, in 1916 were:—

| Districts | Paid-up capital | Value of production |
|---|---|---|
| | $ | $ |
| Toyo | 5,254,713 | 2,697,758 |
| Shidzuoka | 4,805,000 | 4,009,989 |
| Hiogo | 1,350,000 | 2,871,198 |
| Osaka | 883,000 | 2,960,070 |
| Kumamoto | 687,500 | 1,298,511 |
| Fukuoka | 637,500 | 1,281,847 |
| All other | 2,081,099 | 6,796,801 |
| Total | 15,698,812 | 21,916,174 |

## Materials for Foreign Paper Making

Materials entering into the manufacture of machine-made paper in 1916 included 250,254,911 pounds of straw, 158,134,119 pounds of rags, 151,911,801 pounds of sulphite pulp, 194,656,889 pounds of ground pulp, 9,501,611 pounds of soda pulp, and 141,047,478 pounds of other materials, making a total of 905,506,809 pounds.

Pulp for paper making imported into Japan in 1916 totaled 129,292,563 pounds, 51 per cent. of which came from Sweden, 13 per cent. from Norway, 12 per cent. from the United States, 10 per cent. from Canada, and 14 per cent. from other countries. There was considerable decrease in the imports of pulp in 1917, the total being only 31,107,258 pounds, 54 per cent. of which came from Canada, 20 per cent. from the United States, 16 per cent. from Sweden, and 10 per cent. from other countries. The decrease was due to increased production of pulp at home.

The steady increase in the output of pulp in Japan from 1912 to 1916 is shown by the following figures:—

| Year | Mechanical pulp | Chemical pulp | Total output |
|---|---|---|---|
| | *Tons* | *Tons* | *Tons* |
| 1912 | 41,423 | 21,713 | 63,136 |
| 1913 | 46,026 | 24,125 | 70,151 |
| 1914 | 51,140 | 26,805 | 77,945 |
| 1915 | 60,165 | 41,305 | 101,470 |
| 1916 | 70,420 | 48,285 | 118,705 |

The bulk of this supply, or about 50,000 tons, comes from Japanese Sakhalin, where the timber resources are estimated at 30,000,000 shakushime (1 shakushime=12 cubic feet) per year, of which 3,000,000 shakushime are capable of being utilized yearly without fear of deforestation. Allowing half this amount for pulp manufacture, it would be possible to turn out 100,000 tons of pulp a year, an increase over present production of 50,000 tons, which would amount to three times the present imports of pulp. Japan can, therefore, be said to be potentially self-sufficient in paper-making materials.

The leading pulp-producing companies are the Karafuto Kogyo (Industrial) Co., which has an output at present of about 22,000 tons; and the Oji Paper Mill, with mills at Toyohara and Otamari, in Sakhalin, which produced 16,119 tons of pulp in 1917. These mills are shortly to be organized independently under the name of the Karafuto Sangyo (Industrial Products) Co., and will erect another mill at Nodasamu. The other important pulp plant is the Nippon Kagaku Shiryo Kaisha (Japan Chemical Paper Pulp Co.), with an output in 1917 of 5,035 tons. This company has a plant at Ochiai, Sakhalin, and another, half completed, at Higashi-Tomotori, Sakhalin.

## Growth of Machine-Made Paper Industry

In 1915 there were operating in Japan 58 paper-making machines, representing a total machine width of 5,256 inches. In 1916 this number had increased to 66, with a total machine width of 6,123 inches, and in 1917 to 75, with a total machine width of 6,841 inches. The proposed increase in machines, for the years 1918 and 1919 is 12, with a total machine width of 1,312 inches.

As a result of this steady increase in domestic production the imports of nearly every variety of paper have decreased considerably, and there is little reason to believe that the industry is not firmly enough established in Japan to withstand any amount of foreign competition. This is especially true of those kinds of paper, the output of which is on a large scale, and in the manufacture of which the Japanese are organizing for scale production by concentrating the industry on modern lines in the hands of one or two large companies.

## Japan's Foreign Markets for Machine-Made Paper

The growth of the machine-made paper industry in Japan is most graphically depicted in the export statistics, and these should be of interest to American manufacturers, not only as showing the growth of the Japanese industry but also as pointing to those Far Eastern and other markets where Japan has been able to compete and, in some cases, monopolize the paper trade. The exports of Japanese machine-made paper for 1916 and 1917 are as follows:—

| Paper and manufactures. | 1916 | 1917 |
|---|---|---|
| Print paper | $2,335,052 | $3,606,335 |
| Cigarette paper | — | 794,917 |
| Pasteboard | 493,129 | 677,117 |
| Waste paper | — | 547,375 |
| Packing paper | 178,390 | 409,615 |
| Benshi (ream paper) | 266,665 | 361,627 |
| Printed matter | 163,829 | 337,009 |
| Labels | 181,882 | 326,289 |
| Books and journals | 246,350 | 301,330 |
| Blank books | 155,063 | 243,170 |
| Playing cards | — | 201,425 |
| Paper napkins | 144,293 | 150,872 |
| Toilet paper | 94,218 | 126,256 |
| Photographs | 57,726 | 88,024 |
| Mouthpieces, cigarette | 103,366 | 79,613 |
| Wall paper | 34,600 | 71,213 |
| Other paper | 606,184 | 1,019,562 |
| All other paper manufactures | 1,230,872 | 686,038 |
| Total | 6,291,619 | 10,027,787 |

China, Kwangtung Province, and Hongkong probably take 60 per cent. of Japan's exports of machine-made paper, and these exports increased more than 60 per cent from 1916 to 1917.

With the signing of the armistice, the price of paper, in common with a number of other commodities in Japan, suffered a decline. This was viewed optimistically by the trade, however, as the manifold uses to which paper is put in the Far East warrant no fear of a reduced demand, and it was pointed out that the world demand for paper has increased steadily each year, keeping pace with the progress of civilization. Closer co-operation between paper manufacturers and merchants has been effected, nevertheless, and the banks have been lenient toward those merchants whom peace found overstocked with high-priced goods, while a general policy of seeking new markets and further developing old ones has been adopted with a view to strengthening the industry by increased output and consequently lowered costs.

We are indebted to the U. S. Department of Commerce Reports for the information and statistics upon which this article has been based.—The EDITOR.

# The Asiatic Monroe Doctrine and the League of Nations*

## An Analysis of Article Ten and the Pax Japonica

*By G. CHARLES HODGES, Assistant Director, The Far Eastern Bureau, and Lecturer on Far Eastern Trade at New York University.*

The Japanese delegation came to the Peace Conference with three objectives in mind. If the unfolding of Japan's statecraft in the Pacific were to continue, Marquis Saionji and his associates faced the necessity of safeguarding (1) the aspirations of Japan as a non-white Power; (2) preserving the best fruits of Japanese diplomacy in China since 1914; and (3) insuring the regional domination of Japan in the East by reason of her geographic position.

These Japanese desiderata in combination are really the foundations of a so-called Asiatic Monroe Doctrine, but Japan's protection of the third objective is her outstanding purpose. The statesmen of Japan, whatever the feelings of the people, undoubtedly estimate the racial equality plank at its real value; they fully understand its uses, knowing that its diplomatic worth lies not in the thing itself, but in what it leads toward. They realize, too, that much which has happened in China since 1914 cannot be turned to Japan's account, for the disintegration of the Central Empires was without the Japanese calculations, which predicated a compromise peace.

Yet there remains the third alternative. How far is Japan on the road to its realization?

### THE JAPANESE DOCTRINE

Japan has been astute enough to seize on the diplomatic possibilities of the Monroe Doctrine, stripped of its Pan American breadth and surcharged with the predatory selfishness which has always been its danger to the United States. The Japanese government fully understands the value of shibboleths, and its diplomats have long known the worth attached to slogans of well-meaning emptiness by European statesmen. Mikado's Land leaders appreciated that they, too, must shroud their purposes in a world-appealing formula.

As Japanese statesmen so frequently tell us these days, the United States has taught Japan much. In this case, the men in authority in Tokyo saw they had real use for a Monroe Doctrine made in Japan, however, much it might be inspired by a prototype across the Pacific. There was little trouble in finding the outward trappings of an Asiatic Monroe Doctrine. The splendid geographic deceptiveness of the Asiatic continent was invoked to achieve an isolation after the fashion of the Americas. To give it the oneness we have attempted to get by the assertion of the republican tradition, Japanese statesmen tried to call in the equally unsound declaration of racial unity. As for the political parallel, the typical Japanese diplomacy of indirection was trusted to build up the undisputed primacy of Japan in the East.

All this, of course, is the product of that group of leaders in Japan committed to what they call "continentalism"—expansion into Asia politically, removing Japan's dependence on sea power. The foresighted men behind the Mikado's government saw Japan a spokesman for the rest of the mute Asiatic peoples. China's weakness, they appreciated, would lend itself readily to this policy of state; they realized they could always fall back on the sinister side of the European Powers' relations with the Middle Kingdom—even though the Manchus were gone and many things had changed—for a plausible justification of Japanese policy, making opposition to Japanese efforts appear in the light of the psalm-singing righteousness of jealous fellow-criminals. Siberia, these Japanese leaders knew, was then a problem which would take care of itself. With their correct contempt for the occidental miserliness toward time, *i.e.*, the feeling that our generation is the pinnacle of importance, these men in the high places in Japan knew the unhurrying East for what it was in terms of centuries. Southward and to the westward, they saw Siam sandwiched between a French Indo-China and the trans-Indian territories of the British Empire in the Malay Peninsula; they knew they could wait their time.

Japanese spokesmen were quite right about their East. Indian revolutionists found a not unsympathetic asylum. Chinese malcontents leaned on this group of Japanese leaders, who, at the same time, abetted the betrayals schemed in Peking to China's ruin. Russia had learned since 1904 that it was better to share with Japan than have nothing at all. The militarist oligarchy espousing continentalism in Japan believed with one of its spokesmen that at bottom "the spirit of western civilization is plunder." This produced the Japanese adherents of the Great Asia Policy, based on the independence of the East, because of the bankruptcy of the West. As one diplomat told me: "It was a choice between peaceful or aggressive Pan Asianism."

What Japanese statesmen could not understand was the inherent, abiding capacity for idealism underneath the cynicism of European diplomacy. That may have been a fatal over-sophistication on the part of Japan.

### DEVELOPMENT OF JAPANESE PRIMACY

The fundamental stumbling-block in the way of Japan has been the conditions precedent in the Far East; in other words, the vested interests already long built up by the Powers prior to Japan's attempt to establish a kind of Monroe Doctrine. It should be grasped at the start that it was not an attempt to ward off a threatening danger. Japan had to constrict the movement of something already fastened on the Extreme Orient

The Great War gave her that opportunity. Japan proceeded in her interest to redress the Oriental balance presumably forever and chiefly at the expense of her Allies. In the beginning, she moved politically; the power behind the throne in Japan forced the Mikado's Land into the Sino-Japanese negotiations of 1915, subsequently embarking her on the tortuous financial-political diplomacy which persists in one form or another down to the present moment.

The diplomatic chessboard thereafter saw many Japanese moves, those of major importance being the agreements Japan negotiated with the Entente in 1916 and the Ishii-Lansing Understanding reached with the United States the next fall. The Russo-Japanese Alliance formed the extreme advance of the Japanese policy, just as her agreement with America in 1917 represented her minimum.

### ENUNCIATION OF THE DOCTRINE

Probably the first authoritative diplomatic expression of the Great Asia Policy occurred in 1915. Suitably enough, it happened in Peking during the time China was fighting off the first open manifestation of Japanese intents. One of the Japanese diplomats remarked that the 1915 Demands were really a part of this program for the amalgamation of Asiatic interests, China being the primary step. Needless to say, had the Great War gone as Japan then anticipated, this would have been *fait accompli*.

During this period, Sun Yet-sen and certain other Chinese revolutionary leaders espoused the scheme. Even the more solid Tang Shao-yi—now representing the Southern faction at the Shanghai conference to settle China's domestic troubles—publicly committed himself to the effect that the fulfilment of India's independence aspirations depends on a "strong united Sino-Japanese Alliance."

The latter months of the Great War saw the sending out of semi-official feelers. In this, the utterances of Viscount Ishii especially have been important, America being the chief point of attack. Of course, the diplomatic alignment ensured this Japanese move, for we were not involved as were the European Powers. The Paris Conference, with its attenuation of "open covenants openly arrived at," has put a probably not unwelcome reticence upon the Japanese manœuvres. That, however, becomes the story of Article Ten of the covenant—from the first of the British dominions' opposition over Japan's retention of the Pacific islands to the insertion of that most equivocal phrase, "regional understandings like the Monroe Doctrine, for securing the maintenance of peace."

### JAPAN AND THE LEAGUE

There are three ways of testing this Asiatic doctrine advanced by Japanese statesmen, doubtless as such a "regional understanding."

First, let us consider the time of promulgation. Japan's efforts cannot be said to head off a threatening danger, for the outcome of the Great War—if not the events immediately previous to 1914 in the Far East—has made certain that there could be no threat against China's integrity such as an Asiatic Monroe Doctrine must predicate for its very foundations. The European Powers have long been ensconced in the Orient; historically, Japan is nothing more than a newcomer on the Asiatic continent seeking to upset the *status quo* in its own interest.

Which brings up the second consideration, *i.e.*, Japan has been advancing this Pan Asian policy as one of altruism which should appeal to America especially, whereas in practice it has become a weapon of diplomatic assault on her neighbor. The Japanese course in China cannot be squared with the only American Monroe Doctrine which can stand—the Pan American ideal which fortunately has most frequently found expression, especially in recent years.

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Finally, is there no other agency which can preserve to the East its heritage without making one Power dominant, with the right of unrestricted eviction in its own favor?

Under the League of Nations, the Monroe Doctrine of the United States must inevitably change its flat character. Even were the sinister forces in America to come into power, no longer could it be an instrument of aggression. That day is passed, but the Japanese statesmen are not yet sure of it. They do not see that the vitality of the Monroe Doctrine in the United States lies in the passion of the people for democracy, an idealism which must remain a closed book to all save the younger liberal elements in the Japanese Empire.

Its retention at the present time marks the shadowy ground between the purpose and achievement. The American Monroe Doctrine will have a vitality in an inverse ratio to that of the League of Nations—it will decline as the latter grows in effectiveness. Its only sanction has come from a century of development, Pan American in tendency.

### NOT AMERICAN

Japan's contentions come down to two propositions which the United States and the Powers will have to face because of Article Ten in the Covenant.

First.—Do agreements of the Lansing-Ishii type, such as Japan negotiated with the United States and the Entente, give her an exclusive position in China and thus in the East by reason of territorial propinquity?

Second.—Does Article Ten by implication connect the Japanese diplomatic structure built by those statesmen in Tokyo looking Asiaward with "other agreements," identify it with the Monroe Doctrine of the American democracy?

This would make the League of Nations what it is not: an association of aggression to undermine instead of build up. Though only the discussions of the delegations, the minutes of the *in camera* meetings, can remove this obscurity, we may trust that no American representatives could ever pledge themselves to a line of action along which the United States as a democracy cannot go. We have obligations toward China which must be met, too—fundamental expressions of our world purposes uttered with China in mind and a full sense of their import.

# New Books & Publications

(Reviewed by G. PASSERI)

FOREIGN FINANCIAL CONTROL IN CHINA. By T. W. OVERLACH. The Macmillian Company, New York, 1919.

Mr. Overlach can be congratulated upon the idea which prompted him to publish a book on foreign financial control in China at the present moment, when after the signing of the armistice, and the coming of peace, the financial strength of the world, and particularly that of the United States, must look for new fields of profitable employment. Mr. Overlach himself writes on the slip-cover of his book: "With the coming of peace, China re-enters the stage in the play of economic and political rivalries. Lest these rivalries centring in China end in war, it will be necessary for all the Powers concerned to readjust their specific national interests and viewpoints on the basis of mutual respect for the needs and aspirations of all, including those of China. To contribute towards such international conciliation is the aim of this book. It presents an unbiassed analysis of the financial and political activities of the six leading Powers in China during the last twenty years. And it emphasizes the need of international financial co-operations."

It is regrettable to say, however, that Mr. Overlach has not accomplished the task that he has set before himself. His analysis of the financial and political activities of the six leading Powers in China, which he introduces in his book, while fairly accurate as far as the material facts are concerned, is not always unbiassed, and the conclusions at which he arrives are in many instances in absolute contrast to the views of those who can speak of the Far East with a full practical knowledge acquired on the spot and not based entirely upon a study, even though careful, of a voluminous bibliography. Some of the solutions advocated by the author are positively dangerous and it is difficult to understand how he could form opinions that are absolutely antagonistic not only to the interests of China but to those of some of the Powers that have the largest interests in this country.

The only excuse that can be found is given by Mr. Overlach himself where he says that "the method of our investigation therefore must be mainly historical. By considering the vastness of the field the thesis can only aim at a brief analysis and interpretation of history, based upon the most important documents and utterances of authorities and writers such as enumerated in the Bibliography."

It is to be regretted that Mr. Overlach has not limited his task to a more complete analysis of facts, leaving the interpretation of the past political and financial history of this country to those who have made of the subject a lifelong study on the spot.

There is not sufficient time or space to deal with the chapters concerning Great Britain, Russia, France and Germany, but it is desirable to refer to the chapter on Japan, which is the one containing the most palpable errors of interpretation, errors that can be detected without difficulty by everyone who has lived in this country.

What the author says about Korea is absolutely ingenuous but there are very few in the Far East who would conclude with him that "while it was in Japan's interest to strengthen and reform Korea, it was to China's interest to keep the Korean Government corrupt and weak and to withstand Japanese *aspirations*."

And further on: "This war may be said to be a direct outcome of Japan's resolution to reconstruct Eastern politics on a modern basis and of China's persistence in the old methods." Mr. Overlach must now regret having written those words if he has followed closely the latest developments of the Korean question. The Koreans, if they could read Mr. Overlach's book, would no doubt tell him that they certainly preferred China's persistence in the old methods to the Japanese reconstruction of Eastern politics on a modern basis.

The author will be judged as presuming quite a lot when he considers himself competent to "understand the motives and forces which have been at the root of the foreign policy of Japan" from the aspects chosen by him, even if he can quote such an authority as Count Okuma "to harmonize Eastern and Western civilizations in order to help bring about the unification of the world, to effect a right harmony between its own and the outside civilization." These words of a statesman sounded very nicely in "Japan's Message to America" but they have been disproved time after time by actual facts. To quote the FAR EASTERN REVIEW:—

"Apart from the contemptuous disregard for the rights of other Powers in China that Japan has exhibited, in Great Britain and America there has been caused intense disappointment and disgust by the revelation of the fact that Japan was inspired by no sentiment of chivalry in her dealings with a weaker Power. Nothing can be urged in extenuation of the contumelious manner in which Japan throughout treated China. A policy of studied effrontery was inaugurated by presenting the original demands (the twenty-one demands) to the President of the Republic in defiance of all diplomatic etiquette; emphasized by the despatch of troops to China while the negotiations were going on, and crowned by the presentation of an ultimatum in the Japanese language. No excuse can be inevitably be drawn that the Japanese mind is still shackled by feudalism and that the Japanese Government still believes that the weakness of an adversary justifies the arrogant expression of disdain.

"China has acquired much that Japan has scornfully thrown away. She has displayed unsuspected qualities of patience and forbearance, and has shown a genuine desire to preserve the rights of other Powers in China. Though menaced by war from without and by civil commotion from within, the Chinese Government, while conciliatory and courteous to a degree, has resolutely resisted the attempt to place China under Japan's suzerainty. Her diplomacy was successful in forcing Japan to admit in her ultimatum and *communiqué* that she had sought to impair China's sovereignty and to violate her treaty pledges. Moreover, China's diplomacy compelled Japan to show that she was prepared to disregard the repeated declarations that the preservation of the peace of the Far East was her first care, and to exhibit a willingness to force an unequal war on China that could only result in immense injury to all foreign interests in the Republic.

"There can be little doubt, after a consideration of these facts, which of the players will have the sympathy of the audience when the curtain rises on the next act."

What the author says about Japanese activities in Manchuria does not give to the reader the right impression, as there is no one in the Far East who will agree with him that "the different conventions, agreements, etc., clearly prove that Japan is committed as deeply as other Powers are to the policy of the "Open Door," "equal opportunity" and "integrity of China." And it would have been much more to the point if, in order to disprove "Japan's emphatic contention that so far no measure she has taken is inconsistent with the doctrine to which she has pledged herself," he had introduced the very important incident of the notorious "Twenty-one Demands" referred to above, which, it is very significant to note, he does not mention in his book. Also, instead of again quoting Count Okuma that " the best method of diplomacy is to adhere strictly to all principles of international law" he might have quoted the FAR EASTERN REVIEW of May, 1915:

" There is little more that can usefully be said. We have endeavoured dispassionately and impartially to analyse the official *communiqué* of the Japanese Government by subjecting it to the acid of established facts. The analysis has been conducted in no spirit of prejudice, and no inference has been drawn or conclusion arrived at that is not justified by the available evidence, most of which has been supplied by the Japanese Government. The sole desire has been, in the interests of historical accuracy, to correct misconceptions and refute misrepresentations. If in so doing we have been compelled to show that Japan ignores the verities when she does not suppress them, the fault does not lie with us. If it has been made apparent that a willingness has been displayed on the part of Japan to violate solemn treaty engagements; to mislead the Treaty Powers; to compel acquiescence with unjust demands by menace of war; to suppress or pervert the truth; to take advantage of an Ally's inability to protect her rights to secure them for herself; to plunge the Far East into war on admittedly insufficient grounds, and to drag her national reputation through the dust of deceit, Japan has only to thank her own Government for the cynical candour of their official *communiqué*."

We now come to the closing remarks of the author in the chapter on Japan: "Thus is Western control in China gradually declining while Japanese control is in the ascendency. All treaties, conventions, agreements, and alliances, through which Japan is consolidating her position, are concluded for the consolidation and maintenance of a permanent peace in Eastern Asia. This is by no means merely a phrase. It is the crux, the key, to the whole Far Eastern Peace, a *Pax Japonica*. Such is the secret, then, of Japan's control in China: an Eastern Asiatic Doctrine with Japanese Hegemony—Japan to be Sovereign Arbiter and High Protector of Eastern Asia."

This is the dangerous part of Mr. Overlach's book, and we cannot conceive how anybody who has taken the trouble to go through all the publications quoted can arrive at such a conclusion as the above, and Mr. Overlach will excuse us for saying that to advocate a *Pax Japanica* for the Far East is to wish for the end of China as an independent nation and for the exclusion of every other Power from this field of economic and financial activity. We cannot really understand how Mr. Overlach who has so widely quoted the FAR EASTERN REVIEW, MILLARD'S REVIEW, THE NORTH-CHINA HERALD, and the works of Putnam Weale, a few among the many, can write a chapter on Japan in the way he does.

We can only answer the author with the article published in the FAR EASTERN REVIEW of May. 1915, under the heading of " The Open Door":

" This article has been written with the object of showing that the extension of Japanese political influence in China means the closing of the door of equal trading opportunity. If that has been the effect in one portion of China it is legitimate to assume that a similar result will follow in others. The principle of equal opportunity was adopted by all the great commercial Powers because it was realized that the alternative, the Spheres of Influence policy, was fraught with danger to China and to themselves. If there is one country more than another that stands to benefit by the maintenance of the open door policy it is Japan. As long as there is equal opportunity for all in China Japan must necessarily gain the largest share in any development of trade—provided, of course, that her manufactures are of satisfactory quality and that she does not antagonize the Chinese people. Japan has the advantage of proximity; of cheap labor in factory and steamer; of state aid in the shape of reduced freight charges on the Imperial Railways of Japan, of subsidies to steamship companies, of cheap financial accommodation. With these advantages, in conjunction with the sentimental preference that China might be expected to feel for closer commercial relationship with another Oriental nation, Japan, it would be thought, could watch with equanimity the steady increase of her trade with China without seeking to accelerate it by any dubious methods. Japan's trade with China increased from ninety-six million Haikwan Taels in 1905 to one hundred and eighty-five million Haikwan Taels in 1913. Her percentage of the foreign trade of China increased from 14 per cent. to nearly 19 per cent., while during the same period the percentage of the trade of the United Kingdom and Hongkong fell from 48 per cent. to less than 41 per cent. These statistics show plainly that the open door policy in China has been most beneficial to Japanese trade.

"Yet Japan is not satisfied. She not only wants her full share in the increased trade that the progressive policy of the Chinese Government and the restoration of orderly conditions in the interior of China is creating, but she is endeavouring to extend her political influence so that she may filch from other foreigners the trade they have already established. To achieve this end she has compelled China, by a threat of war, to acquiesce in a considerable extension of her political influence and to agree to discuss in the future proposals that are designed undisguisedly to render the principle of equal opportunity inoperative. Some Japanese publicists are quite candid in regard to Japan's ambitions. They state that Japan is sufficiently powerful to compel the European and American merchant to surrender the China market to exclusive Japanese exploitation. Japan professed belief in the open door policy as long as she thought it was advantageous for her to do so, but the time, they declare, has come when Japan can disclose her real policy, that of exclusion. It has also been foreshadowed that the proclamation of a protectorate over China will be followed by the application of the Japanese tariff to the Republic, thus raising a tariff wall round China with gates through which only Japan may pass.

"This may be thought to be the dream of a few hot-headed chauvinists, but those who have studied utterances of Japanese publicists and articles in the Japanese Press relating to Japan's international policy, are aware that there is considerable justification for the belief that Japan designs to apply to the Far East generally the policy of exclusion that kept the foreigner and foreign goods out of Japan itself until the middle of last century. Japan abandoned the policy of exclusion at the beginning of the Meiji era, not because she wished for intercourse with the outer world, but because the foreigner was strong enough to force her to adopt a policy against which her instincts rebelled. Japan thereupon set herself to learn the secret of the foreigner's superiority. She has succeeded. She has learnt to utilise steam and electricity; she has adopted the financial and commercial methods that have enriched the West; the sciences and arts that have ameliorated life conditions in Europe and America are taught in her colleges and universities. Now Japan considers that she has nothing more to learn. Foreign friendship, she considers, is of no further service to her, and she is strong enough to revert to the policy of exclusion which she was forced unwillingly to abandon. But in acquiring knowledge of the secret of Western superiority Japan created for herself requirements that could not be satisfied if the policy of exclusion were reverted to in its original form. Her traders want markets, her manufacturers want raw materials. Moreover three successful military enterprises have led to the development of larger ambitions. In due time the idea of applying the policy of exclusion to Asia instead of Japan was formed The world has just witnessed a long step forward towards its realization.

"Whatever cautious Secretaries of State for Foreign Affairs may say, Japan has revived the policy of Spheres of Influence in China. She is using her military supremacy in the Far East to secure for herself the foreign trade of China and the sole benefit of the development of the natural resources of the Republic. Is she to be permitted to perfect her plans to expel the foreigner

from the lands to which he has introduced the blessings of civilization while creating a mutually advantageous trade? Is it in the interest of the world that Japan should be allowed to establish a political and commercial hegemony over Asia? The answer is obvious.

"It is not suggested that Japan could ever succeed in building round Asia, or even China, a hedge bristling with Japanese bayonets. To ensure success for a project of such magnitude the first essential would be to secure the cordial co-operation of China. Even if Japan were not obsessed by any vision of political and commercial supremacy over half the world the friendship of China would be of priceless value to her. But she has never sought to win that friendship. The settled policy of Japan towards China has been to treat her with severity and subject her to humiliation. Many opportunities to win China's good-will have presented themselves, but advantage has never been taken of them and it may be said with confidence that, as a result of Japan's blundering diplomacy, there exists in all parts of China a deep-seated hatred of the Japanese people. In this may be found a means of preserving the foreign interests in China which Japan is seeking to destroy. It must not be forgotten that the long drawn out diplomatic battle that terminated at 1.30 a.m. on May 9, 1915, when the Chinese Government surrendered to Japanese threats of war, was fought by the Chinese, not only in their own interests, but in the interests of the nations that have built up China's foreign trade. Denied aid from the very countries that had insisted most strongly upon the principle of equal opportunity, China stubbornly resisted Japan's attempted encroachment upon that principle, and she only gave way when she knew that further resistance would entail immense suffering and loss to the Chinese people without preventing Japan from attaining her objects. Though China was striving chiefly to protect her threatened sovereignty she also did her best to preserve the rights of the Treaty Powers. When, therefore, the belligerent nations find time to turn their attention to the grave change in the *status quo* in the Far East brought about by Japan, it may be expected that they will find China ready to co-operate cordially in any action designed to restore the equilibrium and to restrain Japan from further predatory adventures.

"Apart from the moral aspect of the question, the Treaty Powers cannot afford to allow Japan to shut them out from participation in Far Eastern trade. The process of closing the door was started by Japan in 1905. It was gradually and cautiously carried on until the present year, when Japan considered that the time was opportune for accelerated movement. China's diplomacy has been successful in preventing the complete accomplishment of Japan's aims, for the time being. This much she has been able to do by her own unaided efforts, notwithstanding the fact that a nation lusting for cheap military laurels was browbeating and bullying her. Now the duty devolves upon the Treaty Powers to consolidate the position that China has defended for them, and to make it unequivocally clear to Japan that she will not be permitted to monopolize the trade of the Far East."

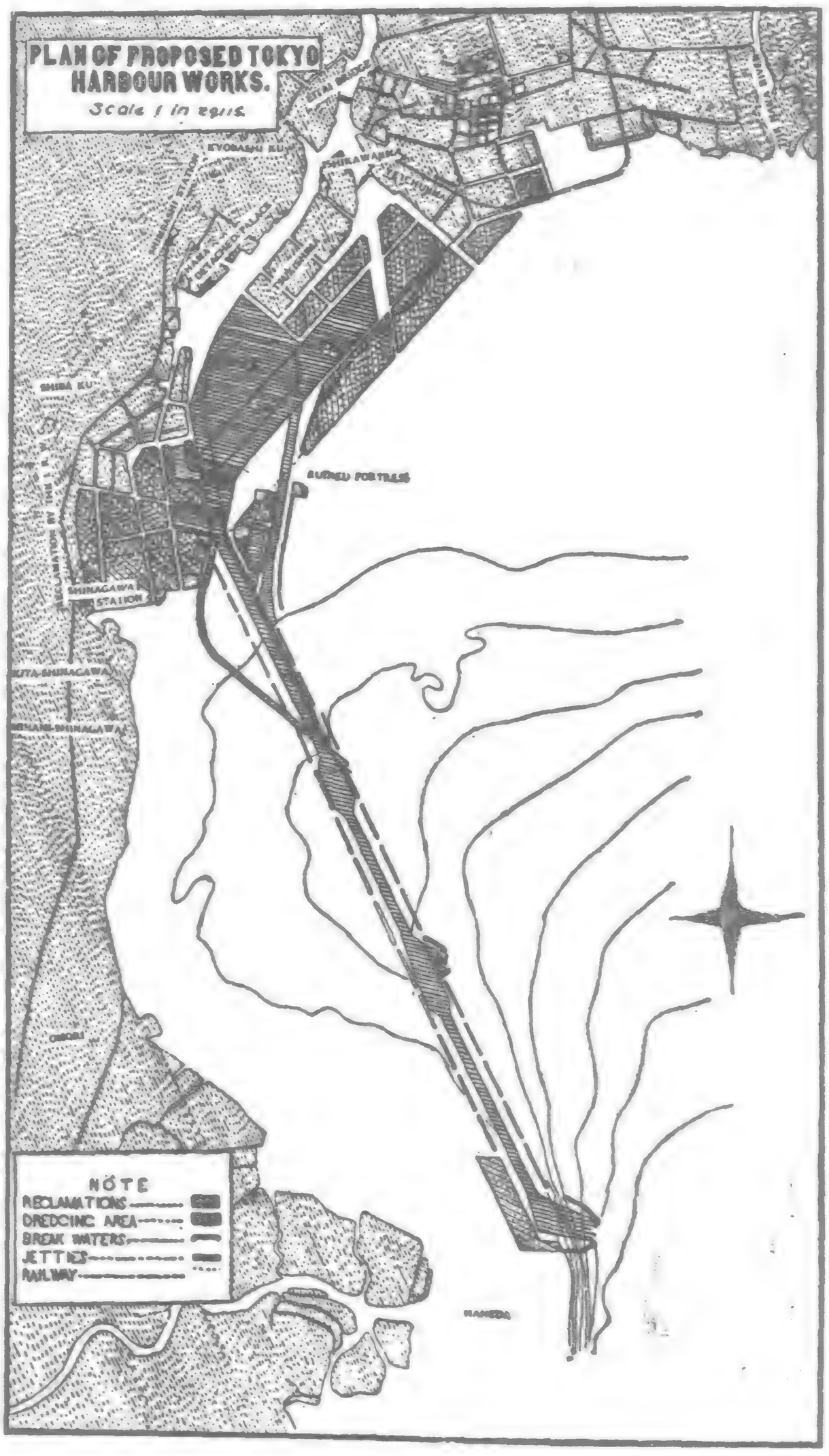
It is unnecessary, after what has been said, to dilate upon the inadvisability for the United States to follow what Mr. Overlach suggests: "The very important point is to be hoped for by financial co-operation between the United States and Japan." Nor would we lay too much stress on the importance of the Lansing Agreement, as we very much doubt whether Japan would live up to the spirit of it. She has certainly shown of late years her preparedness to take advantage of everybody concerned in the economical regeneration of China, and while we sincerely wish that Japan might prove a leading factor in that regeneration we are of the opinion that needs very careful watching while her foreign policy is determined by the military faction.

In Mr. Overlach's book China herself has been sadly forgotten, —China with her immense undeveloped resources, and latent strength—and we would have liked to have seen a book written on the foreign financial control in China advocating first of all a close co-operation of all the Powers concerned with China herself. China is quite capable of assisting in her own regeneration. This is the crux, the key to the whole Far Eastern question, not a *Pax Japonica* in which Mr. Overlach seems to believe.

**The only way in which foreign Powers can at present demonstrate successfully their recent interest in this country is by doing away with the idea of a political, economical, financial supremacy in China and be satisfied with co-operating in a friendly spirit with China herself to her own regeneration.**

## Projected Harbor for Tokyo

Agitation has been afoot for many years to provide a good harbor for Tokyo, the capital of Japan, and we publish a plan herewith which had considerable support and which will, in all probability, be the basis for the programme which it has been decided to carry out at a cost of Yen 100,000,000. The projected harbor will extend from Haneda to Susaki, according to the Deputy-Mayor of Tokyo, and will be able ultimately to accommodate vessels of about 30-ft. draft. Land is to be reclaimed in connexion with the work which is estimated to yield Yen 3,000,000. It is calculated that seventy per cent. of the cargo which enters and leaves Yokohama per year is destined for or originates in Tokyo, and it is felt that this fact alone justifies the construction of a port which will allow the largest ocean lines to berth at its wharves.



# Statistics of Japanese Mineral Production

[BY U. S. TRADE COMMISSIONER J. MORGAN CLEMENTS.]

Statistics of the production of the most important metallic and non-metallic minerals of Japan proper were obtained from the monthly reports of the Japanese Bureau of Mines. The figures were compiled by an officer of the Association of Mine Owners (Kozan Konwakwai) and were later checked in the statistical department of one of the large metal-producing and selling companies of Japan.

The following table shows, in long tons, the Japanese output of the principal minerals during the year 1917 and the first six months of 1918:—

| Minerals | 1917 | January-June, 1918 |
|---|---|---|
| METALS. | | |
| Antimony: | Tons. | Tons. |
| Refined ... | 6,562 | (a) |
| Crude ... ... | 10 | (a) |
| Chromic iron ore | 8,796 | 1,173 |
| Copper ... ... | 63,812 | 41,787 |
| Gold: | | |
| Lode ... ... | b226,122 | b122,632 |
| Placer... ... | b1,402 | (a) |
| Lead ... ... | 15,557 | 2,419 |
| Manganese ore ... | 50,552 | 12,219 |
| Molybdenum ... | 12 | (a) |
| Platinum, placer | b132 | (a) |
| Quicksilver ... | 2 | 1 |
| Silver ... ... | b7,111,720 | b3,166,344 |
| Tin ... ... | 209 | 87 |

| Minerals. | 1917 | January-June, 1918 |
|---|---|---|
| METALS—continued. | | |
| | Tons. | Tons. |
| Tungsten ... | 721 | 291 |
| Zinc (metal) ... | 53,852 | (a) |
| NON-METALS. | | |
| Asphalt ... ... | 3,811 | 1,414 |
| Coal: | | |
| Bituminous ... | 25,939,637 | 13,999,517 |
| Lignite ... | 150,450 | 76,023 |
| Graphite ... | 1,308 | 538 |
| Petroleum, crude | c2,850,159 | c1,220,968 |
| Phosphate rock... | 119,682 | 112,519 |
| Pyrites, iron ... | 119,426 | (a) |
| Sulphur ... ... | 116,120 | 34,963 |

*a* Figures unobtainable. *b* Troy ounces. *c* Barrels of 42 gallons.

## Decreased Output of Antimony, Chromite and Copper

In 1917 the Japanese production of antimony decreased about 30 per cent. Large quantities of crude antimony are imported into Japan from China and refined, most of it is then exported to London and New York. This can only be done profitably when the price of crude antimony in China is low enough to enable Japan to import, refine, and sell it at a profit in those markets, and consequently the output of Japanese refined antimony fluctuates largely according to the prices of crude antimony in China and of the refined metal in London and New York. No figures are available for 1918. However, as there were no very marked fluctuations in the antimony market during this period it is probably safe to assume that the 1918 production will be about the same as that of 1917.

The production of chromic iron ore (chromite) reported for the first half of 1918 indicates a 75 per cent. reduction in the 1918 output, compared with that of 1917. This great reduction is doubtless due wholly to the embargo on imports into the United States. No statistics whatever of the production of iron ore, pig iron, or steel in Japan for 1917 and 1918 were obtainable.

The 1917 figures for copper are not reconcilable with known facts and are probably those for mines having their own smelters and do not include the production from custom smelters. It is suggested by the company which checked the figures that they should be corrected to about 152,000,000 *kin* (89,756 long tons). It is evident that the production greatly decreased in 1917, largely as the result of the loss of the Russian market; however, a better price was obtained for the metal in that year. The figures for 1918 are doubtful; it appears that the production will be less than that of 1917, but the price ruling in Japan has been higher.

## Production of Other Metals Shows Increase in 1917

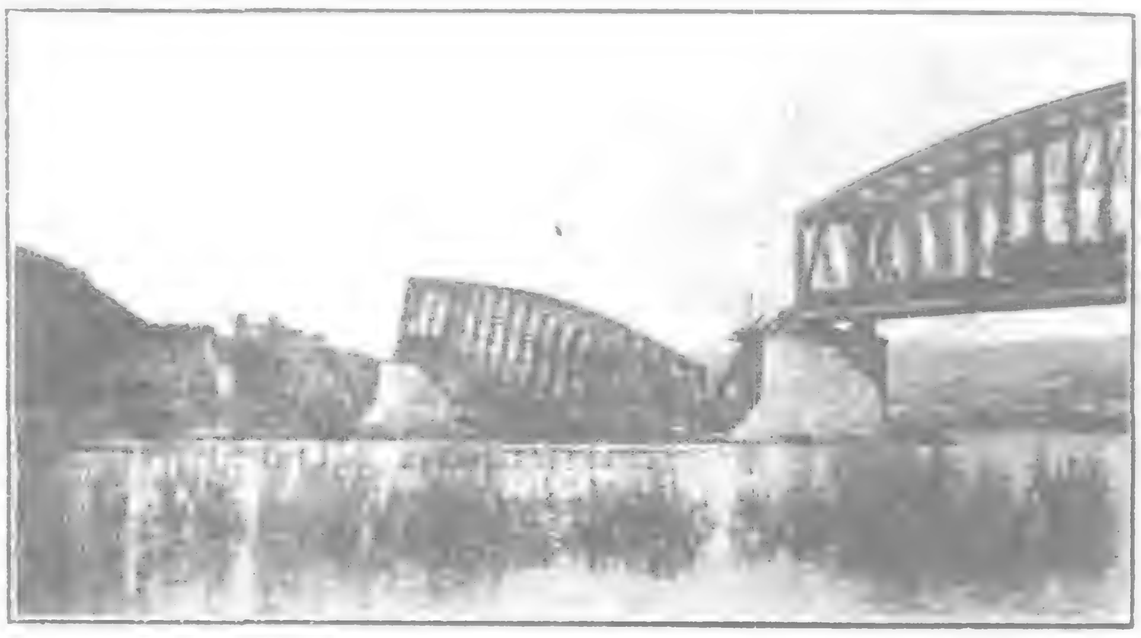
An increase of nearly 30 per cent. is noted in the lead production for 1917 over that of 1916. It is suggested that the figures for the first half of 1918 be corrected to about 4,252 instead of 2,419 long tons. During 1917 large amounts of lead concentrates were imported from Australia, but during the past year the imports have decreased on account of the very high freight rates.

Manganese-ore production shows a small increase in 1917, compared with 1916. On the basis of the reported output for the first half of 1918 the production for the entire year will be decreased about 50 per cent. over 1917. This reduction is chiefly due to the embargo against shipments to the United States and high freight rates.

There was nearly a 50 per cent. increase in the zinc output of 1917 over 1916, but the price decreased markedly. Probable figures of 10,983 long tons are given as the production for the first half of 1918. The decisive decrease indicated by these figures is due to the fact that the large imports of zinc ore from Australia and Tonkin in 1916 and 1917 were greatly reduced on account of the drop in the price of zinc and the rise in freight rates, and to the decrease in the imports of old Chinese copper coins (cash), which were exceptionally large in 1917, and which yield about 20 per cent. zinc when melted.

The increased output of silver in 1917 in spite of the reduction in the copper output is, of course, due to the increased mining of silver ores, stimulated by increases in the price of the metal.

Nearly a 3 per cent. decrease in the output of tungsten ore is indicated by the figures given for 1918. The reason for this is doubtless the decrease in the price and the difficulty of making shipments to the United States.



TWO SPANS OF THE OUON RIVER BRIDGE, SIBERIA, DESTROYED BY BOLSHEVIKS

TEMPORARY BRIDGE OVER THE OUON RIVER, SIBERIA

# Projected Russian Railways in North Manchuria

## Text of the Agreement made between the Chinese Government and the Russo-Asiatic Bank for the Construction of Railways between Tsitsihar and Heiheifu, on the Amur River, and between Harbin and Mergen.

In view of possible developments in North Manchuria and the fillip likely to be given to railway construction in the Far East as the result of the termination of the European War, we have decided to publish the agreement made between the Chinese Government and the Russo-Asiatic Bank for the building of a railway between Tsitsihar and the Amur River and between Harbin and Mergen, a project which was described in the FAR EASTERN REVIEW of April, 1916. In subsequent issues we will publish other agreements for projected railways in China which have not so far been published. The projected Russian line is known as the Pin-Hei Line, and the agreement is as follows:—

### ARTICLE I.

*Contracting Parties.*

The present contract is concluded in Peking the twenty-seventh day of March one thousand nine hundred and sixteen, the twenty-seventh day of the third month of the Fifth Year of the Chinese Republic between the Government of the Chinese Republic (hereinafter called "the Chinese Government") represented by His Excellency Mr. Chow Tsz chi, Minister of Finance, and His Excellency Mr. Liang Tung-yen, Minister of Communications, duly authorised, of the one part, and the Russo-Asiatic Bank (hereinafter called "the Bank"), a Joint-stock Company established in Petrograd, represented by Monsieur L. de Hoyer, duly authorized, of the other part.

### ARTICLE II.

*Date, Denomination and Amount of Loan.*

The Chinese Government authorizes the Bank to issue a gold loan for a nominal amount of Roubles 50,000,000 (fifty million) either at one time or by successive instalments, equivalent to an approximate amount in French francs, Belgian francs, pounds sterling or American dollars, at the option of the Bank.

The product of the issue shall be placed by the Bank to the credit of the Chinese Government in the currency of the market or markets of the issue and for the amount realised on each market. The payment of interest and the repayment of the bonds shall take place in the coin of the issue and in the other places in their respective coin at the rate of exchange of the day. This will be at the charge of the Bank.

The loan will bear the date of the issue of the bonds. It will be called the: *Chinese Government 5 per cent. Gold Loan of 1916 for the Pin-Hei Railway.*

### ARTICLE III.

*Object of the Loan.*

This loan is intended exclusively to furnish the funds necessary for the following purposes:

1. The construction, equipment, and putting in working order of a line which will unite Harbin, or a point situate on the Chinese Eastern Railway near Harbin, to Heiheifu (Sahalian), situate on the Amur River opposite the town of Blagovestchensk, by passing through Mergen, with a branch uniting Mergen and Tsitsihar. The exact route shall be agreed upon between the Director-General, representing the Chinese Government, and the Engineer-in-Chief appointed in conformity with Article XV, who will decline in the interest of the enterprise.

It is agreed that the construction and equipment includes the purchase of necessary land, rolling stock and other installations, as also the work of joining up with the Chinese Eastern Railway in such a manner as to assure an easy and profitable working of the line.

The Chinese Government shall take all steps and assume all charges and indemnities whatsoever necessary to insure the passing of the line through public, Government and Provincial and private property whatsoever in the towns and villages as well as in the country. All sums required for this purpose by the Chinese Government, estimate for which shall be made by the Director-General, shall be placed in its hands and shall be deducted previously from the product of the loan. At the same time the amount of the payments to be made to the Chinese Government under this heading shall be fixed by mutual consent between the Director-General and the Bank and shall be subject to the control of the Engineer-in-Chief in conformity with Article XIII hereunder.

2. To the purchase of the line running from the town of Tsitsihar to the Chinese Eastern Railway and the incorporation of this branch with the present line. The purchase of the line shall be made through the Director-General.

3. To the payment of the interest coupons of the loan as well as the working expenses during the period of construction the duration of which is estimated at five years and shall be definitely fixed after completion of the survey.

Should the construction be completed sooner than anticipated the excess funds thus obtained shall be deposited in the Bank and shall constitute a reserve for the payment of the interest coupons of the present loan, or else for improvements to or repair of the line.

Should the Chinese Government come to an agreement with the Russian Government for uniting by a bridge or ferry service the two banks of the Amur, between Heiheifu and Blagovestchensk, the details of this enterprise shall form the subject of an exchange of letters between the Representatives of the Chinese Government and the Bank, which letters shall ultimately be annexed to this contract.

### ARTICLE IV.

*Interest on the Loan.*

The interest on the present contract shall be calculated at the rate of 5 per cent. (five per cent.) per annum on the nominal amount. It shall be paid half-yearly by the Chinese Government through the Bank to the holders of the bonds. It will be calculated from the date of issue to the public of the said loan and paid under the conditions stipulated above.

### ARTICLE V.

*Duration and Redemption.*

The period of the loan shall be forty-six years. Repayment of the principal shall commence at the expiration of sixteen years calculated from the date of issue to the public subject to the right of prior repayment provided for in Article VI hereunder. It will be made by means of an annual and equal amortisation paid in half each six months to the Bank. These payments shall correspond with the amount specified on the amortisation table annexed to this contract and shall be effected fourteen days before the date upon which they are due established according to the European calendar. The bonds and interest coupons falling due shall be recovered and cancelled by the Bank on presentation. The Bank shall hand them over in good order to the accredited Chinese Ministers in the countries in which payment shall have been effected.

The Bank shall repay to the Chinese Government the amount of every bond or interest coupon which shall not have been presented within thirty years from the date upon which they were redeemable or payable.

When the loan shall have been entirely repaid the present contract shall immediately become nul and void.

### ARTICLE VI.

*Anticipated Repayment.*

After the expiration of sixteen years from the date of the loan the Chinese Government shall have the right to repay at any time and wholly or in part the amount not yet repaid, subject, in case of repayment before the twenty-seventh year, to a premium of 2½ per cent. (two and a half per cent.) upon the nominal value of the bonds on which repayment shall not yet be obligatory by virtue of the table annexed to the present contract, that is to say by paying per bond of one hundred roubles, for example, two roubles and fifty kopecks. On and after the twenty-seventh year repayment may be made without premium.

Each time that the Chinese Government desires to effect any such extraordinary repayment it shall give to the Bank six months' notice in writing.

The extraordinary repayments shall be made by supplementary drawings of bonds which shall take place on the same date as the ordinary drawings, in conformity with the procedure set out in the loan prospectus.

### ARTICLE VII.

*Service of the Loan.*

The Chinese Government undertakes, by these presents, the formal engagement without reserve to pay entirely and promptly the interest and repayment of capital of the loan, in conformity with the table annexed to the present contract.

Further the Chinese Government accords to the holders of the stock of the present loan a special guarantee upon the Pin-Hei Railway.

This special guarantee constitutes a first mortgage upon the line itself, the fixed and rolling stock, dependencies and products. It is accepted by the Bank in the name of the holders of the bonds.

Should the Chinese Government be in arrear with the payment at the date fixed either in the whole or in part of a half-yearly interest or repayment the Bank shall have full power to exercise all the rights arising from this special guarantee according to the laws in force on this subject in the European countries such as Russia, France or England.

During construction the interest shall be paid out of funds deducted from the product of the loan.

After construction is completed the Chinese Government shall deduct the funds necessary for the payment of interest and repayments from the receipts of the railway, should the general revenue be insufficient.

The receipts of the railway shall be paid over to the Bank without delay and placed to a special rouble account of the railway at Harbin or any other branch of the Bank in Northern Manchuria which the Bank may designate.

The Bank shall deduct from these payments the total amount necessary for the service of the loan upon the next two payments. This procedure is in order to insure the necessary provision of gold for this service at least fourteen days before due date.

The half-yearly payments due for interest and repayments shall be paid to the Bank fourteen days before the dates fixed by virtue of the preceding paragraphs.

These payments shall be effected by the Board of Communications to the Bank at Harbin and shall be of an amount sufficient to cover these payments in gold in Europe and in America.

Should, however, the receipts of the railway not be sufficient for the payment of interest and repayment of capital and should the Chinese Government in consequence be obliged to take the necessary funds from its general revenue, these payments shall be effected by the Board of Communications at the Bank in Shanghai or in such place as the Bank may designate, in Shanghai sycee adopted by the Bank or in national currency (when this is in circulation) and shall be of an amount sufficient to cover these payments in gold in Europe and in America.

These payments may, however, be made in Europe should the Chinese Government find that it has at its disposal in Europe *bonâ fide* gold funds not transferred from China for this purpose and which it may desire to use for this purpose.

In repayment of disbursements relative to the payment of interest and repayment of the amount of the loan, the Bank shall receive from the Chinese Governnment a commission of $\frac{1}{4}$ per cent. (one-quarter per cent.) on the annual service of the loan.

Should in the future any State Bank of China establish a branch in Russia which is not simply a correspondent or foreign agent, this State Bank shall share with the Bank up to a porportion of 50 per cent. (fifty per cent.) the service of the transfer of the funds.

### ARTICLE VIII.

*Price of Loan to the Chinese Government.*

The price of the bonds to be paid by the Bank to the Chinese Government shall be the issue price to the public on the Petrograd market less 6 per cent. (six per cent.) of their nominal value. Should no issue take place in Petrograd the price shall be that obtained upon the other place or places of issue less 6 per cent. (six per cent.) of the nominal value of the bonds. The Bank reserves to itself the right to determine the amounts to be issued on the various markets. When fixing these amounts it shall take into consideration the conditions of these markets.

The Bank shall bear the expenses occasioned by the issue and placement of this loan, such as: Syndicate guarantee, commission and brokerage, telegraphic and postal correspondence charges, engraving and printing of the prospectus and the bonds, stamps and taxes.

The Director-General or the Chinese Ministers in the countries in which the issue shall take place shall be notified in advance of the rate of issue of the loan which shall be as favourable as possible.

### ARTICLE IX.

*Issue of the Loan.*

The Bank is authorized immediately to create the gold bonds representing the total amount or a part only of the loan, and it shall keep them in its possession until the issue of the loan as soon as it shall judge favorable to make it. The Bank is authorized to deliver the bonds to the subscribers in due course in conformity with the prospectus of the loan.

The nominal amount of the bonds shall be fixed by the Bank who may create bonds of various values.

The Bank shall decide the form of the bonds, the language in which they are to be drawn up and the currency in which their value shall be expressed, in conformity with the usage of the countries in which the issues shall be made. It shall give previous notice of same to the Director-General or the Chinese Minister in the countries of the issue.

The Bonds shall bear the fac-simile of the signature and official seal of the Minister of Finance and the Minister of Communications in order to render it unnecessary that they should sign them themselves.

As soon as the bonds have been printed the Chinese Minister in Petrograd or in the other countries where the issue shall take place shall affix to each bond the fac-simile of their official seal and their signature as proof that the issue and sale of these bonds are authorized by the Chinese Government and made in its name and on its account.

The bonds shall be sealed and countersigned by the Bank or its agents in the countries in which issue shall be made.

All the necessary details for the prospectus, or with reference to the payment of interest and the repayment of the capital of the loan, which shall not be explicitly fixed by the present contract shall be settled by the Bank after consultation with the accredited Chinese Ministers in the countries in which issue shall be made.

The Bank is authorized to publish the prospectus of the loan as soon as possible after the signature of the present contract.

The Chinese Government shall give instructions to its accredited representatives in the countries in which issue shall be made, so that they may sign the prospectus of the loan and give their assistance to the Bank in all matters that may require it.

The first series, of which the amount shall not be less than Roubles 10,000,000 (ten millions) or its equivalent in French francs, Belgian francs, pounds sterling or gold dollars, in conformity with Article II, shall be issued as soon as possible after ratification of the present contract. The date of issue of the subsequent series, the which shall not be less than one-fifth of the total amount of the loan, shall be fixed by common consent of the Bank and the Chinese Government in such manner that the work and purchase of material provided for by the present contract shall experience no delay. The Bank may nevertheless issue the entire loan at one time, should it judge expedient so to do, having previously advised the Chinese Government of same, who will consent to it.

The subscription shall be opened by the Bank in Europe, in America should issue be made in this country, and in China on equal terms. Preference shall be given to the subscription of the Chinese Government provided that this subscription shall be remitted to the Bank at least four days before the publication of the prospectus.

The Bank shall give to the Chinese Government seven days' previous notice of the date of the publication of the issue prospectus.

Should the present state of war not have ceased in Europe before the publication of the prospectus for the issue of the loan, or, should in consequence of this crisis the condition of the markets render the issue of the loan impossible, or, again, should a political or financial crisis in China seriously affect the market price of Chinese state stock already in existence, there shall be granted to the Bank a reasonable extension of time for the execution of the present contract. Should the loan not have been issued within the extended time the present contract shall become nul and void.

### ARTICLE X.

*Lost Bonds.*

Should one of the bonds issued for the present loan be lost stolen or destroyed, the Bank shall notify the same to the Minister of Communications as well as the accredited Chinese Minister in the country in which this bond was issued.

The same will authorize the Bank to publish in the papers that payment on this bond has been stopped and to take all steps which may be necessary on this occasion according to the laws and usage of the country.

Should the bond have been destroyed or should the lost or stolen bond not have been recovered within the time fixed by the Bank, the accredited Chinese Minister in the country shall affix his seal to a duplicate of this bond of the same nominal value and shall deliver it to the Bank in its capacity of representative of the owner of the lost stolen or destroyed bond.

The Bank shall pay all expenses on behalf of the owner of the bond.

### ARTICLE XI.

*Tax Exemption.*

All bonds, all coupons and all payments made or received in connection with the service of the present loan shall be exempt from all Chinese taxes or duty during the period of the loan.

### ARTICLE XII.

*The Bank Trustee.*

The Bank may act as trustee for the holders of the bonds of the present loan.

It may undertake to represent them and it shall have the power to act in their name in all the negotiations with the Chinese Government which may be necessary or in all discussions concerning the present loan.

### ARTICLE XIII.

*Deposit of the Product of the Loan—Accounts of the Railway.*

The Bank shall deposit the product of the loan to the credit of an account entitled "Chinese Government 5 per cent. loan 1916 for the Pin-Hei Railway," which shall be opened by the Bank in Europe and in America should a part of the issue be placed in this country.

The product of the loan shall be deposited to the credit of this account by successive payments in conformity with the terms granted to the subscribers of the loan.

The credit balance of this account shall bear interest to the profit of the Chinese Government at the rate of 3 per cent. (three per cent.) per annum. As to the sums transferred to China and not yet used they shall bear interest at the best rates granted by the Bank on ordinary deposits.

The Bank shall hold at the disposal of the Director-General the net product of the loan plus the current interest, taking care, however, to reserve the sum necessary for the payment of the interest coupons and the Bank's commission on these coupons during the construction of the line, which period is estimated at five years, but which shall be fixed definitely after completion of the survey. A sufficient sum shall also be left in Europe and in America, if issue has been made in that country, for all payments of material and staff.

Should he so desire the Director-General may transfer the funds of the loan to China after previous agreement with the Bank on this subject. The transfers effected in the course of one week may not exceed £75,000 sterling (seventy-five thousand pounds sterling) without the consent of the Bank.

The transfers shall be effected through the Bank and their amount shall be deposited to the credit of a "Pin-Hei Railway" account at Harbin, the Bank being responsible for same.

In conformity with the estimate drawn up by the Engineer-in-Chief for the expenditure to be made in China during the following month or months, the Director-General shall decide the amount of the sum to be deducted for this purpose, which amount shall be deposited to the credit of a construction rouble account, an account which shall be opened by the Bank at Harbin or such other branch of the Bank in North Manchuria as it may designate.

This transfer from the Pin-Hei Railway account to the construction account shall be made by the Director-General through the Bank. He may not take sums required during more than one month except with the consent of the Bank. The construction account will bear interest at the rate fixed in conformity with the rules in force for this class of current accounts.

Withdrawals from this construction account shall be made in amounts sufficient to meet expenses as the line advances by cheques on the Bank, which cheques shall be conjointly signed by the Director-General and Engineer-in-Chief.

The amount of these cheques shall be paid over to an agent designated by the Director-General against a receipt from the agent and on the responsibility of the Director-General. This agent shall not part with these funds except on a requisition signed conjointly by the Director-General and the Engineer-in-Chief. The Director-General and the Engineer-in-Chief shall have the most absolute right of control over all the expenses and receipts of the railway.

During the period of the loan the accounts of the railway shall be kept in Chinese and in Russian in conformity with the modern methods applied in connection with the Chinese railways constructed with the help of foreign capital and under the direction of a Russian Chief Accountant engaged by common consent of the Director-General and the Bank and placed under the orders of the Engineer-in-Chief. The Chief Accountant shall draw up an organization chart of the European staff which he estimates as necessary for the good working of this department and submit it, through the Engineer-in-Chief, for the approval of the Director-General. The Director-General reserves to himself the right to choose and engage the Chinese staff required by the Chief Accountant and to place it under the orders of the latter.

The management of the railway shall publish annually, at the close of the year, a report in Chinese, Russian and French showing the receipts and expenditures of the working of the railway. The public may have access to this report on request.

### ARTICLE XIV.

*Contingent Deficit or Excess.*

Should the product of the loan augmented by the interest on same not be sufficient to complete the construction and equipment of the railway, the Bank shall issue a new series of the loan for the amount necessary to complete the line and put it in working order on giving previous notice of same to the Chinese Government. The interest on this new series as well as the price shall be the same as in the case of the present loan.

Nevertheless should the Chinese Government have *bonâ fide* funds available, these funds may be used for the continuation without interruption of the construction work. These funds shall be considered as forming part of the capital of the railway, but the dividends to which this capital shall be entitled may not in any way affect the stipulations which insure the payment of interest and repayment of the capital of the present loan.

Should any excess funds not utilized be available, after the achievement of the complete equipment of the railway, this excess shall be deposited with the Bank and shall constitute a reserve for the payments with which the Chinese Government is charged by virtue of the present contract, or again for improvements or repairs to the line.

### ARTICLE XV.

*Construction.*

The survey in connection with the construction of the line shall be commenced with the least possible delay after the signature of the contract and the work commenced directly after the issue of the loan.

The length of the line shall be definitely fixed after the termination of the survey.

The gauge of the line shall be the same as that of the Chinese Eastern Railway.

The Chinese Government shall nominate a Director-General of the line. This official shall reside permanently in the immediate neighborhood of the work. He shall have full powers to act in the name and for the account of the Chinese Government within the limits of the present contract. The Engineer-in-Chief shall take instructions from him, or during his absence, from his duly authorized representative. The remuneration of the Director-General shall be fixed by the Chinese Government in agreement with the Bank and shall be at the charge of the railway.

The work of construction of the line shall be done under the chief management of the Director-General.

The Director-General and the Bank shall conscientiously and unanimously make choice of the Engineer-in-Chief who must be Russian, experienced, and honest.

The Engineer-in-Chief shall control the survey, plans, tracings, and specifications of the line, direct the execution of all the work, and order the supplies, tools, and material necessary to insure regular working. However, all these operations shall be submitted in the first place for the approval of the Director-General.

The Director-General shall fix the remuneration of the Engineer-in-Chief after agreement with the Bank.

The Engineer-in-Chief shall draw up an organization chart of the European staff necessary for the construction and shall submit it for the approval of the Director-General. This staff, which will include the Chief Accountant, the heads of the various departments, the section heads, etc., shall be engaged by the Bank who will place them under the orders of the Engineer-in-Chief.

As regards the Chinese staff, technical or otherwise, the Director-General reserves to himself the right to select same. He will place it under the orders of the Engineer-in-Chief. No Chinese or European employee may be engaged without the consent of the Director-General.

It is agreed that Chinese subjects having made special study or having acquired sufficient practical knowledge may be introduced by the Director-General to the Engineer-in-Chief who shall employ them on the same terms as the European employees, but it shall be necessary to send them in the first place to the Engineer-in-Chief who, assisted by the technical representative of the Director-General, shall examine their capabilities.

For a grave fault the Director-General may exact the dismissal of the non-technical staff: in that which concerns the technical staff and all the European staff, the Director-General may demand the dismissal of same by the Engineer-in-Chief, who must comply with the request should the reason given be recognized as sufficient.

For the recall or dismissal of the Engineer-in-Chief the previous agreement of the Director-General and the Bank is necessary.

Members of the European staff shall in a general way give the greatest consideration to the Director-General and his special representatives. They shall respect the local authorities and not mix themselves up with the affairs of the country. They shall also respect the Chinese manners and customs so as to live in harmony with the inhabitants.

The intention of the contracting parties in inserting the preceding stipulations is to safeguard the prestige of the Director-General and to insure the regular continuation of the work.

The Director-General also reserves to himself the right, in agreement with the Bank, to delegate to the work one or several Special Representatives furnished with full power. The remuneration of the representatives shall be incumbent upon the railway.

The Bank undertakes to come to an agreement with the Chinese Eastern Railway with a view to a special tariff of 50 per cent. (fifty per cent.) reduction on the ordinary tariff for the transport by this line of the construction material for the Pin-Hei Railway. This advantage shall not, however, extend to the Eastern Chinese line comprised between the station Kwanchense and Harbin.

### ARTICLE XVI.

*Supplies.*

During the period of construction the Bank shall act as agent of the Railway for the purchase of all material and merchandise, utensils and raw material for use in the construction of material in China which may be imported from abroad.

With the object of encouraging Chinese industry, price and quality being equal, preference shall be given to Chinese supplies, and material manufactured in China, to the detriment of foreign supplies. No commission shall be paid on purchases of Chinese material or merchandise.

In the case of all orders and all purchases made abroad the Bank shall buy in the open market with the object of securing the most favourable terms, especially those in connection with quality and price. Conditions being equal supplies of Russian origin shall be given the preference should the Engineer-in-Chief recommend them to the Director-General, otherwise in a general way supplies of Russian origin or from the countries in which an issue of the loan shall be made shall be placed upon an equal footing and shall enjoy a preference on equal terms over the supplies of other foreign origin. The orders as well as the adjudication of the work shall be checked by the Engineer-in-Chief and submitted for the approval of the Director-General.

The accounts of moneys paid for supplies for material and costs of all kinds incurred in Europe shall be sent, together with all justificatory documents every three months to the General Management for approval. The Bank will add to the original net cost of the supplies purchased in Europe and in America a commission of 5 per cent. (five per cent.) as remuneration for its services as agent.

All orders placed by the Bank for the railway shall be exempt from all customs duty, taxes, and likin on their entrance into or passage through Chinese territory.

Nevertheless this stipulation does not impair the right of the Chinese Government to attach if desired the orders with such future duties as may be placed on those destined for the construction and equipment of all the other railways of the country without distinction.

### ARTICLE XVII.

*Working of the Line during Construction.*

As the various sections of the line are finished the Director-General and the Engineer-in-Chief shall entrust the working of the section or sections to a Russian Traffic Manager, who shall be engaged by common consent of the Director-General and the Bank and placed under the orders of the Engineer-in-Chief. They will in general take mutually the steps necessary for their working.

### ARTICLE XVIII.

*Future Branches and Extensions.*

Should the Chinese Government deem it necessary or desirable to construct branch lines connected with this railway or to lengthen this line it shall do so with its own money, *i.e.*, out of funds of *bonâ fide* Chinese origin.

Should it desire to call in foreign capital it undertakes to give preference to an agreement with the Bank and to give it the option of the contracts in connection with this enterprise, on the same terms as those which may be offered by other foreign Banks or Companies.

### ARTICLE XIX.

*Final Working of the Line.*

The working and administration of the railway shall be under the head management of the Director-General.

When the construction of the railway shall be entirely finished the work of the Engineer-in-Chief shall be considered as terminated, and the Director-General shall in conjunction with the Bank engage a Russian engineer who shall be charged with the working of the railway as well as the upkeep of the line, material and dependencies. This Engineer will take orders from the Director-General, or, in his absence, from his duly authorized representative. The Director-General shall fix the terms of his engagement.

The Engineer-in-Chief, together with the Director-General, shall engage the necessary European staff, such as the Traffic Superintendent, Superintendent of the Line and Works, Traction Superintendent, and Superintendent of the Working of the Railway.

For the recall or dismissal of the head of a department the previous agreement of the Director-General and the Bank is necessary.

All receipts and expenses shall be regularly placed to the account of the railway at the Russo-Asiatic Bank, the interest on this account being fixed at the most favourable rate given by the Bank on sight or fixed deposits as the case may be.

All expenses for the working of the railway and maintenance of the line shall be paid out of the various products and receipts of the railway, after which the net profits shall be applied in the first place to the service of the present loan.

Should, after payment of these expenses and after provision having been made for payment of interest on the bonds and repayment of capital as provided for in the amortisation table annexed to the present contract, there remain any unused fund or funds available for other purposes, the same shall be placed at the disposal of the Chinese Government.

The Chief General Accountant who shall be of Russian nationality shall be appointed by the Director-General in conjunction with the Engineer-in-Chief. He shall sign conjointly with the representative of the Director-General all cheques and documents of any kind connected with the accounts.

The representative of the Director-General and the Engineer-in-Chief shall have right to the most absolute control of the receipts and expenses of the line.

Each time that it may be necessary to appoint technical agents of the railway or define their functions or else decide upon their dismissal, the Director-General shall consult the Engineer-in-Chief and act in agreement with him.

In case of disagreement between the Engineer-in-Chief and the Director-General the matter shall be submitted to the Board of Communications who shall decide the question without appeal.

The guarding of the railway shall be secured by a force of Chinese police, commanded by Chinese officers, whose wages and upkeep shall be entirely at the charge of the railway as part of its own expenses for construction and maintenance. The number of the guard shall be fixed by the Director-General in agreement with the Bank.

Should the protection of the railway necessitate the employment of other military forces belonging either to the Chinese Central Government or the Provincial Government, this protection shall be asked for by the railway and promptly accorded. The said military forces shall then be maintained at the expense of the Chinese Central Government or the Provincial Government.

In case of war with any nation or a revolution in China the transport of troops, munitions and supplies for the Chinese Army shall take precedence over all other commercial transport. It shall be done in conformity with the instructions of the Director-General. Further the transport of anything which may be prejudicial to the Chinese Government shall be forbidden.

*Supplies.*

It is agreed and convened that after completion of the construction of the line, the Bank shall have right of preference to act as agent during the period of the loan in all that which concerns the supply of material or anything required in the manufacture of material that the management of the railway may require on terms which are to be agreed upon later by common consent. These terms may not be more advantageous for the Bank than those stipulated for in Article XVI.

Should there be question of employing one or several foreign firms as agents for ordering any supplies for the working of the line, the Bank shall, conditions being equal, have preference over others.

### ARTICLE XX.

*Right of Assignment, Substitution and Transfer.*

The Bank may designate one or several Banks in China or abroad to carry out conjointly with it or in its stead all or part of the financial functions with which it is charged by virture of the present contract.

The Bank shall have the right, with reservation of all the engagements entered into under the present contract, to transfer or delegate all or part of its rights, powers and benefits to any other Company or Group, or to agents or administrators, with powers of substitution in whole or in part.

It is agreed that these Companies or Groups delegated or substituted by application of the preceding paragraph shall be of Russian nationality and that these transfer of rights shall be subject to the approval of the Minister of Communications.

### ARTICLE XXI.

*Arbitration.*

In the event of confliction or divergence of views between the Bank or its assigns and the Directorate-General on the subject of the present contract, these conflictions or divergencies of view shall be submitted to the decision of two arbitrators, one chosen by the Chinese Government and the other by the Bank. In case of disagreement the two arbitrators shall designate a third arbitrator who shall decide the matter without appeal.

### ARTICLE XXII.

*Executory Formulæ.*

The present contract shall be sanctioned by Presidential Edict.

The promulgation of the Edict shall be officially confirmed without delay by the Waichiaopu to His Excellency the Russian Minister in Peking.

It is made in quadruplicate each containing the French and the Chinese text: two copies shall be retained by the Chinese Government and two by the Bank.

In case of doubt or difference concerning the interpretation of the present contract the French text only shall be taken as evidence.

Peking the twenty-seventh day of March, one thousand nine hundred and sixteen, twenty-seventh day of the third month of the Fifth year of the Republic.

THE MINISTER OF FINANCE,

(Sgd.) CHOW TSZ-CHI.

*(Seal of the Board of Finance.)*

THE MINISTER OF COMMUNICATIONS,

(Sgd.) LIANG TUNG-YEN.

*(Seal of the Board of Communications.)*

THE RUSSO-ASIATIC BANK.

27th March, 1916.

(Sgd.) L. DE HOYER.

# ENGINEERING, FINANCIAL, AND INDUSTRIAL NEWS

## RAILWAYS

**Kowloon-Canton Railway.**—The Hongkong Blue Book for 1918 proves that the Kowloon-Canton line continues to more than pay its way. In 1918 there was an excess of earnings over expenditure of $77,053.36, local currency.

**East Coast Railway to Build Bridge.**—The largest bridge which has ever been built in Malaya, consisting of five spans, each of 250-ft., and five spans each of 150-ft., making a total length of 2,000-ft., is to be built over the Kelantan River on the East Coast Railway.

**The Lunghai Railway.**—It is reported in Peking from Honan that surveys on the western extension of the Lunghai Railway, a Belgium contract, have recently been conducted by Japanese engineers, employees of Okura & Company, on the highway between Kuan-yin-t'ang, the present railway terminus, and Shanchow. The local Chinese gentry have been very eager to have the Belgian engineers resume work, but as most of the capital provided by the Belgian loan was squandered during Yuan Shih-kai's monarchical movement there have been no funds, and it has been found difficult to finance the work. It is, therefore, believed in Honan that Okura & Company have agreed to advance the Belgian contractors sufficient to go on with construction in the immediate future and that in return for such advances contracts for the supply of material, and for all of the work but the structural steel work on railway bridges, will be given to the Japanese firm.

**Locomotives for S.M.R.**—Twenty-five Mikado type locomotives, ordered from the United States, are now being operated on the S.M.R. Co., Manchuria Lines. It is reported tha twenty-five more locomotives for freight service and six locomotives for passenger service have been ordered from the United States, and will arrive in August, September, and October. The Mikado type locomotives already received have four pairs of wheels, and this makes them rather heavy for eighty pound rails, but the other locomotives have each five pair of wheels and may be run with safety over rails of eighty pounds or even less. It is also reported that eighty goods cars and seventy-eight passenger cars have been orderd.

**Congestion on the S.M.R.**—The congestion of cargoes at the S.M.R. Co. Manchuria line has gradually decreased since April, and on April 26 there were 605,900 tons of cargoes awaiting shipments along the lines. At the present rate of shipment, the congestion will be cleared by September.

There are at present the following amounts of cargoes awaiting shipment :—

| | Tons |
|---|---|
| Fushun ... ... ... ... | 17,910 |
| Kungchuling ... ... ... | 67,300 |
| Tiehling ... ... ... | 16,502 |
| Fanchiatun ... ... ... | 31,890 |
| Kaiyuan ... ... ... | 72,914 |
| Changchun ... ... ... | 21,863 |
| Ssupingkai ... ... ... | 31,057 |

**Tram Company to Build Cars in Shanghai.**—The Shanghai Tramways Company will henceforth build its own tram cars in Shanghai, according to plans which have been already put under way. A new factory building will be erected as an extension of the Wayside sheds, which will cover an area of one acre. The present construction program includes the building of 15 tramcars of the regular type and 7 of the railless variety.

**S.M.R. Traffic Returns.**—The South Manchuria Railway traffic returns for the month of May show a further continuation of the extraordinary prosperity with which the Company has been favored during the recent years without a reverse. The particulars were as under :—

| | |
|---|---|
| Passengers ... ... ... | Y. 996,548 |
| Goods ... ... ... ... | 3,436,560 |
| Warehouse ... ... ... | 105,939 |
| Miscellaneous ... ... ... | 222,035 |
| Total ... | Y.4,761,082 |

The daily average was Y.153,583, being an increase by Y.37,672, over the corresponding period of last year. The monthly increase for April over the same month of last year being Y.845,259, the total increase for April and May reached Y.2,013,103.

**Japanese Railway Returns.**—The total receipts of the Railway Board of Japan during the month of April last amounted to Y.25,950,378, showing an increase of Y.6,616,941 as against the returns for the same month of last year. Of the amount Y.15,369,939 were from passengers, 37,628,405 in number, and Y.10,580,439 from freights amounting to 4,933,532 tons in weight.

**South Manchuria Railway Debentures.**—The South Manchuria Railway Company has announced its sale of new debentures worth Y.20,000,000 and carrying an interest of 6 per cent. per annum. The maturity of the new debentures is 15 years, but the repayment will be started after the fifth year from the date of the new debentures at the rate of Y.300,000 or upwards annually. The net price offered is 93.5 per cent. The sale starts June 23, the lists being closed June 28. The payment of the whole amount is called up July 21.

**Electric Railway to Miyanoshita.**—The electric railway which has been in course of construction for some time past between Yumoto and Gora, via Miyanoshita, Japan, has now been opened for traffic. The line is five miles in length and climbs to 1,800-ft. along the sides of the mountain and across ravines. The cars, which weigh 35 tons each and accommodate 50 passengers each, are fitted with four forms of brakes—according to a correspondent of the "Japan Chronicle"—electric, magnetic, air, and hand. The railway cost, to build and equip, some Y.3,000,000. It now gives easy access to Miyanoshita, which hitherto could only be reached by a steep though picturesque road.

**Chinese Eastern Railway.**—The threatened strike on the Chinese Eastern Railway was averted by the granting of an increase of wages by amounts varying from 30 to 300 per cent., retrospective to March. Fares and freights have been increased to meet the additional expenditure.

## MINING

**Suzuki Would Buy Kyushu Mines.**—Suzuki & Company of Kobe are endeavoring to buy several coal mines in Kyushu. The Company already has two mines, one of which can turn out about 20,000 tons per month, and is now reported to be negotiating for the purchase of others. These are to be amalgamated as one concern called the Imperial Coal Company, with a capital of Y.10,000,000. Of the Y.10,000,000, Y.7,500,000 is to be paid up immediately.

**Japanese Mineral Production.**—According to investigations made by the Department of Agriculture and Commerce the output of gold and other minerals produced in Japan during the month of March showed some decrease as against the returns for the same month of last year, an increase of 3.3 per cent. being witnessed in coal alone. The particulars are as follows :

| | March |
|---|---|
| Gold ... ... ... | 159,020 momme |
| Silver ... ... ... | 3,671,051 ,, |
| Copper ... ... ... | 11,114,306 kin |
| Iron ... ... ... | 4,832 French tons |
| Coal ... ... ... | 2,283,697 ,, |
| Kerosene oil ... ... | 156,800 koku |
| Sulphur ... ... | 3,383 French tons |

| | Jan.-March |
|---|---|
| Gold ... ... ... | 487,895 momme |
| Silver ... ... ... | 10,242,141 ,, |
| Copper ... ... ... | 31,045,990 kin |
| Iron ... ... ... | 17,116 French tons |
| Coal ... ... ... | 6,204,953 ,, |
| Kerosene oil ... ... | 457,580 koku |
| Sulphur ... ... | 8,630 French tons |

**Output of Coal in Ural Region.**—A Japanese newspaper reports that the output of coal in the principal producing centres in the Ural region during last May were as under :—

| | poods |
|---|---|
| Cheliabinsk region ... | 3,400,000 |
| Kizelo-Lounievsky ... | 1,317,000 |
| Bogoslovsky ... ... | 1,200,000 |
| Egorshinsky ... ... | 300,000 |

Compared with the first few months of the current year, the outputs of all these regions are on

the increase, as may be noted from the following table :—

| | | Outputs poods |
|---|---|---|
| Cheliabinsk region | for January (1919) | 2,099,000 |
| | ,, February ,, | 2,359,000 |
| | ,, March ,, | 3,352,000 |
| Kizelo-Lounievsky | ,, January ,, | 461,000 |
| | ,, February ,, | 700,000 |
| | ,, March ,, | 1,254,000 |
| Bogoslovsky | ,, January ,, | 965,000 |
| | ,, March ,, | 1,285,000 |

The most conspicuous were the output figures for the mines belonging to the Cheliabinsk Coal Merchants' Society, which gave in January last a total of 374,000 poods of coal, 489,000 poods in February, 743,000 poods in March, and 1,000,000 poods in May. In several cases the May yields were three to four times as large as the January outputs.

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**Japanese Mining Permits.**—Applications for mining permits in Japan during April numbered 1,300, of which 1,251 were for trial diggings, 20 for permanent mining, and 29 for alluvial work. The number of applicants during April showed a decrease of 1,877, and for the quarter ending with April a decrease of 5,819, as compared with the same periods in 1918.

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**Seoul Mining Co.**—The milling plants on the Suan Concession, during the month of May, crushed a total of 14,940 tons of ore for a gross production of Yen 181,537.06. Operations at the Tulmichung mill have been temporarily suspended and the plant is now being given a general overhauling.

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**F. M. S. Mineral Exports.**—The Senior Warden of Mines, Federated Malay States, has compiled statistics of the exports of gold, tungsten and tin from the Federated Malay States during the past two years. The comparative figures are given below :—

Gold.—The total export in 1918 amounted to 18,309 oz., compared with 18,154 oz. in 1917, and the value, taken at £3 17s. 6d. per oz., was £70,948 in 1918 as against £70,346 in 1917.

Tungsten Ores.—The total export of tungsten ores was 821 tons in 1918, compared with 761 in 1917, and was made up as follows :—

| | 1917 | 1918 |
|---|---|---|
| Wolfram ... ... ... ... | 421 | 710 |
| Scheelite ... ... ... ... | 340 | 111 |
| Total (in tons) ... ... | 761 | 821 |

Block Tin and Tin Ore.—There were exported in 1918 from the various States a total of 37,370 tons of tin, compared with 39,833 tons in 1917, a decrease of 2,463 tons. The approximate value of the tin (in Singapore) is taken for revenue purposes at £11,032,234 in 1918, against £8,489,610 in 1917.

## INDUSTRY

**Sino-Japanese Lumbering Company.**—The Sino-Japanese Kirin-Fengtsai Lumber Company, formed by Chow Tze-chi, former Minister of Finance, Count Okura, and other Chinese and Japanese merchants, is reported to have a capital of $1,000,000, divided into 10,000 shares of $100 each. Of these shares 5,200 belong to the Japanese merchants and 4,800 belong to the Chinese.

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**Chinese of Chinese Cotton Mills.**—Cotton mills operating in Shanghai and other parts of China have a total of 1,528,041 spindles and 6,993 looms, according to Noel, Murray & Co.'s report. The output of these mills is from 800,000 to 1,000,000 bales of yarn, according to the demand, and it may be calculated that each loom turns out 300 pieces of .40 yards of cloth in twelve months, or a total of 2,097,900 pieces.

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**Oji Paper Mill Pays 25 per cent.**—The Oji Paper Manufacturing Co., one of the great paper companies of Japan, has declared a dividend of 25 per cent. per annum on the workings in the last term.

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**Japanese Spinning Mill Dividends.**—The Kanegafuchi Cotton Spinning Co., Tokyo, has decided to declare a 20 per cent. dividend in addition to a 50 per cent. supplementary dividend. Another mill, the Nisshin, has declared a dividend of 35 per cent.

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**Japanese Worsted Mill Enlarges Capital.**—The Toyo Worsted Spinning Co. is to double its present capital of three million yen. Large quantities of new machinery ordered from abroad are beginning to arrive.

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**Cement Production in Japan.**—In 1916 there were in Japan 20 companies manufacturing cement, employing an aggregate labor force of 6,444 persons, of whom 692 were females. The output of these companies increased from 4,772,579 barrels, valued at $9,957,798 in 1916, to 5,398,918 barrels, valued at $15,758,401 in 1917. Values of cement exported in 1916, 1917, and 1918 amounted to $1,355,514, $1,335,065, and $2,996,065, respectively. Most of the output is Portland cement made by the dry process. Some fine cement is being manufactured by the Aichi Cement Kabushiki Knisha, Atsuta, Minamiku, Nagoya. Roman cement is also produced in several localities, but in very small quantities.

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**Leather Factory in Canton.**—The Star Leather Co., a Chinese concern located at Pakhokchow. Honam, is no longer in the experimental stage, but is doing a good business. The company, which was organized about three years ago, has a capital of $100,000 Mexican and employs about 30 workmen. The leading officers of the firm are graduates of the University of California. This factory produces an excellent quality of box calf in black, and is preparing to include yellow box calf and brown Russia in its manufacture in the near future. The daily output at present reaches 100 pieces of box calf. The finished article represents a cost of about $7 Mexican per square foot and sells for $8.40. The leather manufactured compares favorably with the foreign imported article and sells for several dollars less per square foot. The company is planning to purchase more machinery and other equipment, and hopes soon to be able to supply most of the local demand.

The importation of foreign manufactured leathers in an average year totals nearly $200,000 Mexican. The value of raw hides shipped during a good year exceed $500,000 Mexican.

## SHIPPING

**Dairen Wharf Storage Returns.**—In one year from April, 1918, to March, 1919, the total goods stored under the Dairen Wharf custody reached 1,766,754 tons, and 1,588,523 tons were removed from the Wharf custody. However, the above figures represent railway goods brought to Dairen from the north only, and to the above are to be added the local goods received into the Wharf custody to the amount of 801,495 tons and 1,125,968 tons taken out of the custody. The main goods under custody were 1,157,414 tons of beans, 138,416 tons of beancake, 118,663 tons of kaoliang, and 104,589 tons of miscellaneous goods.

The amount of the through cargoes also increased, and the total reached 378,533 tons. Of the total the Chinese Eastern Railway transferred 276,000 tons. On account of the disturbances in Siberia, it became impossible to ship goods to Vladivostok and Russia, and they were mostly shipped south to Dairen, increasing the through goods.

The through goods reaching Dairen were as follows :—

| From | Tons |
|---|---|
| Chinese Eastern Railway ... ... ... | 276,028 |
| Japan ... ... ... ... ... ... | 29,092 |
| Ssupingkai-Chengchiatun Railway ... ... | 38,686 |
| Tientsin ... ... ... ... ... ... | 61 |
| Shanghai ... ... ... ... ... | 1,987 |
| Kirin-Changchun Railway ... ... ... | 31,819 |
| Others ... ... ... ... ... ... | 122 |

As shown in the above, the goods handled on the Dairen Wharves during one year from April, 1918, to March, 1919, reached the grand total of 5,282,740 tons.

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**New Ships for Pacific Mail.**—The Pacific Mail has added two new 9,000-ton freighters to its trans-Pacific service, the *West Sequane* and *West Conab* of the U. S. Shipping Board.

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**Lack of Space to Europe.**—Very little relief has come to shippers in Shanghai because of the armistice. A local shipping firm states that it has applications for about 70,000 tons of cargo space to Europe with only about 5,000 tons of space available or in sight.

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**The Japanese Shipping Combine.**—Recent proposals for the formation of a Japanese-American steamship company culminated in a conference at Kobe between steamship companies. The Vice-Minister of Communications reported that as a result of a visit he had made to America he had secured offers for 50 per cent. of the capital—the proposed total being 200 million yen. Under the scheme 36 vessels will maintain three services from New York to Vladivostok, Yokohama to Odessa, and London to Colombo.

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**Japan-America Freight Rate.**—The rate from Japan to North America has lately risen from $5 to $6 gold. During the war it reached $40, but after the conclusion of the armistice fell to $5.

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**N. Y. K.'s Profits.**—The net profit of the Nippon Yusen Kaisha for the term ending March 31, 1919, was Y.33,220,208 including Y.1,632,547 brought forward from the last account. The surplus will be appropriated as follows :—

| | |
|---|---|
| Legal reserve fund ... ... ...Y. | 1,584,614 |
| Appropriation to cover high rates of charter ... ... ... ... | 13,000,000 |
| Directors' and auditors' fees ... ... | 580,000 |
| Dividend (10 per cent. per annum)... | 2,900,000 |
| Extra dividend (40 per cent. per annum) ... ... ... ... | 11,600,000 |
| Fund for training, protection and encouragement of seamen ... ... | 400,000 |
| Pension fund ... ... ... ... | 1,500,000 |
| Balance ... ... ... ... ... | 1,655,594 |

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**New Ships for Admiral Line.**—The Admiral Line have now been assigned by the U.S. Shipping Board the following steamers to be operated permanently in the trans-Pacific freight service :—*Western Knight, West Hematite, West Munham,*

*West Celina*. All of these ships are of 8,000 tons deadweight capacity, and about 10,000 tons measurement capacity, all being of the U.S. Shipping Board standard type of steamers. The first two listed will be operated in the service to Puget Sound, calling at Seattle, Tacoma, Victoria and Vancouver, and the regular ports of call in the Orient will be Yokohama, Kobe, Shanghai, Manila and Hongkong. The *West Munham* and the *West Celina* will be operated in the service to and from Portland, Oregon, making the same ports of call in the Orient. This probably marks the first step of the U. S. Shipping Board in assigning their ships for permanent operation in the trans-Pacific trade.

The *West Munham* sailed from Portland, Oregon, May 3, and will return to that port sailing from Hongkong about July 2. This was the first U.S. Shipping Board trans-Pacific liner despatched from the port of Portland in the trans-Pacific trade. The *Western Knight* which sails from Seattle about June 20 will be the first U. S. Shipping Board steamer to sail from that port in the regular trans-Pacific trade. This now gives the Admiral Line four first class steamers in the trans-Pacific service and if conditions warrant, this fleet will probably be increased at a later date.

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**Japanese Line Pays 200 Per Cent.**—The Meiji Marine Transport Co., Kobe, has declared a dividend of 200 per cent., or the same as for the previous term, besides alloting eight million yen for writing off depreciation of fleet.

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**Shanghai Shipping Returns Show Improvement.**—The figures for ships entered and cleared at Shanghai during the first quarter of 1919 show an increase over the same period of 1918 of 250,000 tons, the total being 3,680,000 tons.

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**N.Y.K.'s War Profits.**—Since October, 1914 up to March last the Nippon Yusen Kaisha realized a net profit amounting to Y.200,989,952, of which Y.61,618,400 were disposed of as dividend. Details are as follows :—

| | | Profit Yen. | Dividend Yen. | Rate of Dividend |
|---|---|---|---|---|
| 1915 | 1st half ... | 2,388,271 | 1,100,000 | 10% |
| | 2nd half ... | 5,345,434 | 1,650,000 | 15 |
| 1916 | 1st half ... | 9,614,231 | 2,635,600 | 20 |
| | 2nd half ... | 17,243,231 | 3,850,000 | 28 |
| 1917 | 1st half ... | 19,517,133 | 5,500,000 | 40 |
| | 2nd half ... | 28,981,642 | 7,190,080 | 50 |
| 1918 | 1st half ... | 33,628,329 | 9,398,400 | 50 |
| | 2nd half ... | 52,683,441 | 15,793,920 | 60 |
| 1919 | 1st half ... | 31,587,660 | 14,500,000 | 50 |
| | Total ... | 200,939,952 | 61,618,400 | 36 |

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**Mexican-Japanese Shipping Deal.**—Details of the steamship line between Mexico and Japan proposition, which Mr. Yoshio Onodera is coming to Japan to take up with the Japanese government, are given in a recent issue of "El Universal," a daily paper published in Mexico City as follows :

"The Mexican Department of Communications and Public Works has approved a contract with Yoshio Onodera, representative of a large Japanese navigation company, to establish a line of steamers on the Pacific Coast. The conditions agreed to in this contract are considered very advantageous to the Mexican Government, as the new company binds itself to take into service students, pilots and engineers appointed by the Government, and to make a discount of 75 per cent. on passenger rates to all Mexican immigrants. The company will also carry free of charge all correspondence and certain classes of freight. In compensation the company will receive for a period of five years a subvention proportioned to the tonnage transported during that period, but its obligations to the Government shall be maintained for a period of ten years. Eight steamers, which will fly the Mexican flag, will be put into service, four being used in through trade and four coastwise. The time fixed for establishing the new line will be eight months from the date this contract is signed."

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## FINANCIAL

**Asia Bank Opens in Peking.**—The Asia Banking Corporation, an American bank which has lately established itself at Shanghai, Hankow and Tientsin, has added a new branch at Peking, which is open for business. In addition, branches will shortly be opened in Changsha, Canton and Hongkong. The home office formerly at 66 Liberty Street, New York, opened for business on May 5 with new and larger quarters at 35 Broadway, with 7,000 square feet of space on the ground floor.

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**Japanese Circulation Figures.**—Investigations made by the Department of Finance show that the total amount of coinage and paper money in circulation at the end of April was Y.1,300,404,914. Compared with the preceding month the figures represent a decrease of Y.19,764,118 but an increase of Y.297,912,949 as against returns for the corresponding period of last year. The details are as follows :—

| | |
|---|---|
| Gold coin ... ... ... | ...Y. 56,564,966 |
| Silver coin ... ... ... | ... 140,260,101 |
| Nickel coin ... ... ... | ... 10,117,337 |
| Bronze coin ... ... ... | ... 3,263,648 |
| Copper coin ... ... ... | ... 7,991,546 |
| Petty notes ... ... ... | ... 106,845,000 |
| Mank of Japan notes ... ... | ... 847,978,380 |
| Bank of Chosen notes ... ... | ... 90,974,538 |
| Bank of Taiwan notes ... ... | 36,409,395 |

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**Hongkong's Finances a Record.**—The Hongkong government revenue in 1918 was $18,665,248 (local currency), or $3,506,143 more than the revenue of 1917, which constituted the previous record. Expenditure was $15,352,172, or $3,111,697 above the estimate and $2,161,000 over 1917.

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**Postal Savings Increasing.**—The number of depositors in Japanese postal savings banks aggregated 20,400,901 with deposits of Y.588,807,010, on May 30.

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**Decrease in Japan Gold Account.**—The Finance Ministry reports the total amount of gold to the account of the country at Y.688,000,000 June 14, the figure being a decrease of Y.1,000,000 as compared with the close of May. The decrease is stated to have occurred in the holding kept at home by the Government. The holdings of the Bank of Japan have undergone no change. The former, taking the decrease into account, have come down to Y.958,000,000 including gold kept overseas. The latter including the gold kept overseas amounts to Y.730,000,000. The total amount of gold kept at home totals Y.444,000,000 while that overseas amounts to Y.1,244,000,000. Most of the specie held by the Government over seas has been invested in foreign bonds and notes.

**New Bank in China.**—Mr. George Wilson, assistant general manager of the Union Bank of Canada, has arrived in Shanghai in the interests of the Park-Union Foreign Banking Corporation, which intends to open a branch office here in the near future. The new Bank is a subsidiary of the National Park Bank of New York—one of the oldest and strongest banks in New York, and the Union Bank of Canada, which has over 325 branches in Canada, an agency in New York and branches in London and Paris. The Park-Union Bank is also opening branches in Yokohama and Kobe—and contemplates establishing several offices in China. Mr. F. V. Reilly, at present manager of the Philippine National Bank here, will assume charge of the new Branch.

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## COMMERCE

**New Chinese Tariff Becomes Effective.**—The revised Chinese Customs tariff, which was published originally in this magazine in January, 1919, and repeated in the February ("Ports of the Orient") number, was promulgated on July 1 and will be enforced on August 1, 1919. Goods may be shipped from foreign countries, under the old tariff, up to and including the last day of its effectiveness—viz., July 31.

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**China Cotton Crop.**—The Chinese cotton crop for 1918 was excellent and probably the largest ever harvested. The quantity exported was 1,292,094 piculs, valued at Hk. Tls. 37,987,337, or an increase of 459,631 piculs and Hk Tls. 17,851,475 over 1917 totals.

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**Hongkong Matting Trade.**—High freight rates have discouraged the matting trade of Hongkong. As a consequence less of the straw is under cultivation as farmers are cultivating crops showing more immediate profit. The curtailment of cultivation has, however, kept the market fairly steady. Continued decline is shown in export since 1912, a normal year, when 526,500 rolls were exported. In 1916 the export had fallen to 107,332 rolls and to 98,333 rolls in 1917. Of 1917's crops the United States of America took 70,996 rolls as against 38,873 in 1916. Great Britain took 23,860 rolls and Europe 3,977 rolls against 66,227 and 2,232 rolls respectively in 1916. Of ths U.S. trade 45,000 rolls come from South China and 24,000 from Indo-China. Last year Hongkong exported £473,342 worth of matting.

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**The China Wood Oil Trade.**—China has risen rapidly in the vegetable-oil world, for within two decades the country has developed a trade in these oils that now nets Tls. 30,000,000 per year. Wood oil is of particular interest as having the following uses :—In China.—(1) As a paint oil for outside purposes, excelling linseed oil in drying qualities. (2) The cruder oil, applied to native boats, paints, varnishes and preserves in one operation. (3) With the mineral substances t'u tsu and t'o-shen added, it serves as a waterproofing varnish for silks, etc. (4) As an adulterant in lacquer varnish. (5) As an illuminant. (6) When mixed with lime and bamboo shavings, for calking native boats. (7) The soot of wood oil produces the best quality of Chinese ink. (8) As a dressing for leather and a varnish for furniture, etc. In America.—Chiefly for the manufacture of varnish, since it possesses the advantage of drying quickly and of making high-class varnish with cheap gums.

**Silk Production in Canton District Looks Promising.**—It is reported that the silk industry in Namhoi, Fatshan, Shuntak, Saichao, Taileung, Yingki and Kweichow will be very successful this season. The first and second crops have been very fine. According to a report made in May, 200,000 small native silk factories are in operation.

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**Hongkong Glass Trade.**—The 1918 imports into Hongkong aggregated 1,255,000 square feet of sheet or pane glass and 234.977 square feet of plate glass. British manufacturers were able to supply all the plate glass through their ability to make deliveries within six or seven months after the despatch of the order, while of the ordinary glass Japan furnished about 28,000 boxes and the United States 2,000 boxes.

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**Grace Co. Extends Operations.**—The Grace China Co., agents and representatives in China of W. R. Grace & Co., will extend their operations in Siberia and Manchuria. For some years past W. R. Grace & Co. have operated in Russia through a subsidiary company known as San Galli—Grace Co., incorporated in Russia, and the Grace Russian Co., an American corporation. However, this combination has been changed, incident to which the American International Corporation of New York has taken a considerable share in the Company's future program in Russia, which will hereafter be conducted under the name of the Grace American International Corporation.

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**Mitsubishi Buys German Properties in Shanghai.**—The Mitsubishi Company has purchased the quays, warehouses and other properties formerly owned by a German firm at Shanghai and has floated a new company, the Kwaryo Warehouse Company, to manage them.

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**International G. E. Co. Officials Visit China.**—On June 17, Mr. Gerard Swope, the President of the new International General Electric Company of New York, arrived in Shanghai for a brief visit, in company with Mr. Allan H. Jackson of the Legal Department of the General Electric Company of New York. The other member of the same official party to the Orient, Mr. S. L. Whitestone, the General Auditor of the General Electric Company, arrived several days before. They have come to Shanghai for about ten days, in the interests of the International General Electric Company. The International General Electric Company of New York is a newly-incorporated concern which has taken over all of the foreign business of the General Electric Company. Mr. Swope, the President, will include practically all parts of the world in the present inspection tour. The interests of the General Electric Company in China cover two fields: The distribution of electrical machinery and supplies, for which Andersen, Meyer & Company, Limited, are the Agents for China, and the manufacturing of electrical supplies which is carried on by the China General Edison Company, Incorporated, a subsidiary of the International. The factory of this company is located on Robison Road, Shanghai, and is at present manufacturing lamps for the Far Eastern market.

## HARBORS, DOCKYARDS, ETC.

**Yokohama Harbor Improvement.**—The enlargement of Yokohama harbor which had been discussed for some time, has been decided upon, and plans will soon be prepared. According to the new scheme, the harbor will be divided into two sections, the outside and inner harbor. The former will comprise an area of 400,000 *tsubo*, and will be protected by a breakwater extending from Honmoku to the mouth of the River Tsurumi. The present harbor will be improved, and will become the inner harbor.

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**Progress on Kobe Harbor.**—The new piers in Kobe harbor, now only requiring the finishing touches, have been built at a cost of Y.20,000,000 spread over twelve years. Sheds and railways connections are all that now await completion. The intention of the Harbor authorities is that, except coasting boats, all big steamers shall use the piers. All liners, whether for Europe, North or South America, Australia, India, Dairen and Shanghai, are expected to moor alongside.

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**Kawasaki Dockyard Declares Big Dividend.**—For its recent business term the Kawasaki Dockyard Company, of Kobe, one of the most prosperous companies in Japan, has decided to pay a dividend of 40 per cent., the same as for the preceding term. The net profits for the term amounted to Y.10,307,207, which together with Y.1,383,459 brought forward from the previous term, makes a total of Y11,690,666. It is disposed of as follows:—

| | |
|---|---|
| Legal reserve ... ... ... | Y.1,071,900 |
| Special reserve ... ... ... ... | 1,000,000 |
| Depreciation of buildings and plant | 1,000,000 |
| Workers' life insurance and pension fund ... ... ... ... ... | 250,000 |
| Fund for educating meritorious workers ... ... ... ... | 250,000 |
| Fund for general encouragement of education ... ... ... ... | 250,000 |
| Reserve for equalising dividends ... | 1,206,000 |
| Dividend 40 per cent. per annum ... | 4,824,000 |
| Bonuses ... ... ... ... ... | 44,000 |
| Carried forward ... ... ... ... | 1,398,766 |

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**Big Japanese Dockyard Combine.**—The Yoshiura Dockyard, near the Kure Admiralty, has been bought by the Kawasakai Dockyard, the combination making the largest concern in this line in the Far East.

## MISCELLANEOUS

**American Dye Concern Opens in Shanghai.**—The National Aniline and Chemical Co. has held the formal opening of its Shanghai establishment at 14 Canton Road. The concern is an American corporation with a capital of 35 millions, and it is said at present controls 80 per cent. of the American market. Four factories are operated in the United States. The equipment of the laboratory for Shanghai has all been shipped from America and a full stock of intermediates for the production of dyes is to be carried in China.

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**Share in Guam Cable has Passed to Japan.**—The submarine cable between Shanghai and Guam which was under German and Dutch operation before the war will by the stipulation regarding the submarine cables in the German peace terms, be handed over to Japan so far as the German share is concerned. An informal negotiation is now going on between the Japanese and Dutch governments and it is understood by the Taiyo News that the cable will be transferred to Japanese and Dutch co-operation at the conclusion of the Peace Treaty.

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**Automatic Phones for Manila.**—The Philippine Islands Telephone and Telegraph Company, which operates the telephone network in and about Manila, has placed orders with the Automatic Electric Co. for the construction and installation of two automatic exchanges which will serve the Binondo, Tondo and Santa Mesa districts, respectively, and will form parts of the present system in the city.

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**New Japanese Oil Well.**—The Hoden Oil Com- have completed a new well at Toyokawa, Akita, which yields 100 *koku* of crude oil daily.

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**Use of Electric Light in Japan.**—Statistics compiled by the Communications Department show that 99 out of 100 Japanese households are equipped with electric light.

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**Telephone Plant at Wuhu.**—Telephone service is making progress in the interior cities of China. Wuhu (Anhwei) is the latest city to have a system, which has just been installed.

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**Shansi Government Ranch.**—Progress is reported on the cattle ranch which has been established by the Shansi authorities for experimental and educational purposes. An American supervisor will be engaged.

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**Shanghai Telephone Service.**—Direct lines in service at Shanghai now total 7,493. In December, 1918, the company notified subscribers that owing to non-arrival of switchboard materials for the expansion of the central exchange, which were to have been delivered as far back as 1915, the traffic of the central office had become congested and it would not be possible to install new instruments. A manual plant has been ordered to be ready for shipment four months from May, and when the material is set up the congestion will be relieved. These facts were developed at a recent meeting, at which a dividend of Tls. 4 plus a bonus of Tls. 1.50 (per Tls. 50 share) were declared accounting for Tls. 79,188 and Tls. 29,695.50 respectively from a total appropriation of Tls. 222,646.

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**Japanees Population in Shantung.**—A Japanese paper reports that, according to an investigation made at the end of May, 1919, there were 26,505 Japanese in Shantung, of which 15,607 were men and 11,898 women. Of the total number of the Japanese in Shantung, 20,202 were in the Kiaochow Leased Territory, and the remaining 6,303 were distributed along the Shantung Railway line. The Japanese population in the former German Leased Territory was as under:—

| | |
|---|---|
| Tsingtao ... ... ... ... | 17,814 |
| Taitungchen ... ... ... ... | 1,056 |
| Litsun ... ... ... ... ... | 340 |
| Tsangkou ... ... ... ... | 113 |
| Shatzukou ... ... ... ... | 15 |
| Ssufang ... ... ... ... | 636 |
| Others ... ... ... ... ... | 224 |
| | 20,201 |

At Tsinan there were 828 households with 1,397 males and 1,049 females totalling 2,446.

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**New Y.M.C.A. House at Shanghai.**—The cornerstone of the new National Building of the Young Men's Christian Association of China was laid recently at the building site, Hongkong and Museum Roads. The structure will be of five stories, and will be constructed throughout in the most modern fashion.